Expert

methods

Build a Better Bust

Establish support and shape before you fit the dress

BY RUTH CIEMNOCZOLOWSKI
(from issue #124)

Evening gowns, prom dresses, wedding gowns, sundresses, and halter tops—all require specialized bust support. There are ways to shape the breasts, establish a beautiful silhouette, and secure the needed support so that you are assured that everything stays invisibly positioned without any tugging.

On these occasions, you're usually showing a little more skin, and my suggestion is: Don't fit to the bosom you possess—fit to the bosom you want.

Most breasts also require support or lift, which calls for tension against the body to work, something like a suspension bridge. I'll describe how to establish the tension you need for the best lift.

You can use my methods in ready-made garments as well as in the ones you sew. Ideally, you should decide your method of establishing shape and foundation before you cut out your garment fabric.

Ruth Ciemnoczolowski's custom-clothing career was launched at the Omaha Playboy Club, where she earned her "PhDD" in supporting the bosom.

Assemble the necessities

Fabric stores and online sources sell the notions you'll need, but a waist stay is custom-made.

MOLDED FOAM CUPS

Similar to but smaller than brassiere cups, molded cups are used to hold and shape the breast. The best ones have thin edges that seem to disappear when sewn into a garment. They come in several colors but can be covered with tricot to match your skin tone. [Laceland.com]

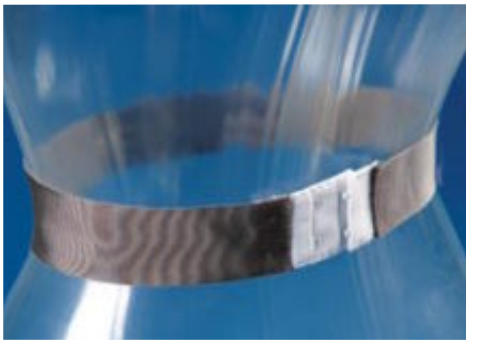
Thin molded cups provide a smooth shape without adding volume. This type of cup is used for bosoms that require a layer of thin padding for modesty and normal support. Other cups are heavier and have padding—some even have built-in pads. [SewSassy.com]

PADS

When positioned in various locations inside a cup, pads add cleavage, reshape the bosom, or balance an asymmetrical bust. Purchase pads at fabric stores and lingerie shops or online. [SewSassy.com; Greenberg-Hammer.com]

BRA EXTENDERS

The hook-and-eye arrangement typical of a bra closure can be purchased at any notions counter. Ready-made ones make easy closures for waist stays or when reconfiguring a bra. [WardrobeSupplies.com]



WAIST STAYS

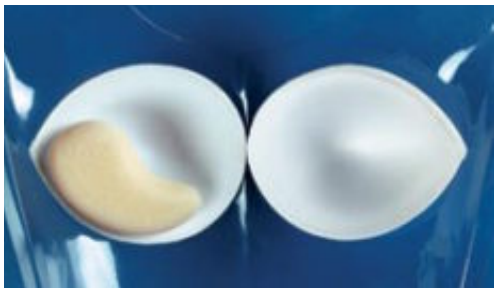
A waist stay provides stable support that anchors boning or tension systems to hold a dress in place. To make one, cut grosgrain ribbon or nonroll elastic to fit snugly around the waist; sew bra extenders to each end for an adjustable closure. A waist stay is usually sewn inside the gown by tacking it at the side seams through the lining to the fashion-fabric seam allowance or to the boning, if it is present. The stay is fastened with all of the support systems in place before the dress is zipped.

How to shape the breast

Configure the support system using cups and pads to create a beautifully shaped bosom.
Elastic alternative: If the breasts are full and padding is undesirable, you can also add lift and shaping by sewing elastic strips into the cup.

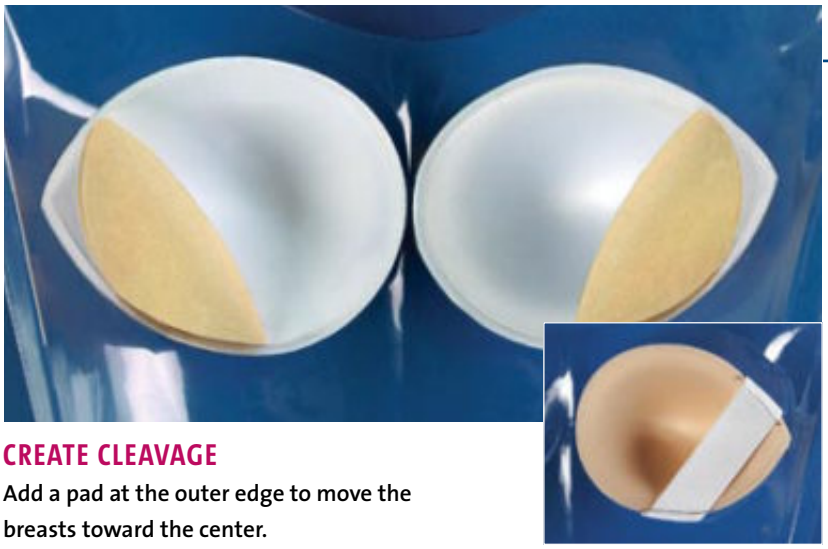
ADD VOLUME WITH DEMI CUPS

A demi cup pads the lower half of a breast to lift it, which also helps fill out the center top edge of the gown. To make demi cups, cut a foam pair of cups in half. You can sew the lower half into a whole cup and secure the half cup at the center and boned side seams. Or you can use just the half cup and create horizontal tension by sewing elastic strips between and on the sides of the cups, as shown.



BALANCE ASYMMETRICAL BREASTS

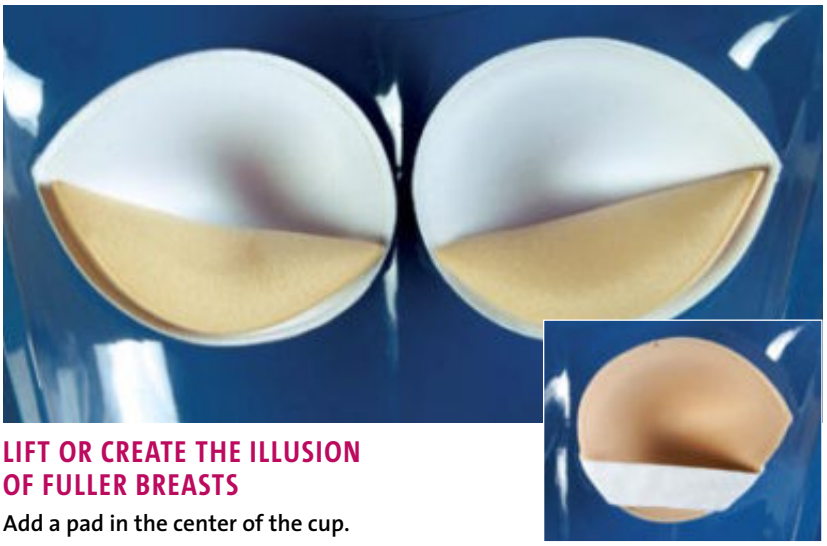
Pad only one breast. If the pads are asymmetrical, adjust one pad higher or lower until they appear perfectly symmetrical.



CREATE CLEAVAGE

Add a pad at the outer edge to move the breasts toward the center.

Elastic alternative



LIFT OR CREATE THE ILLUSION OF FULLER BREASTS

Add a pad in the center of the cup.

Elastic alternative

SEPARATE THE BOSOM

Position a pad or elastic at the inner edge to separate.

Elastic alternative

Photos: Sloan Howard, except p. 5 (left), Scott Phillips

APPLICATION AND ALTERNATIVES

When support is not an issue, cups sewn directly into the dress provide some padding and modesty but won't provide lift. Cups can also contain a variety of shaping elements.

SEWING IN A CUP

Attaching a cup invisibly to your dress requires a lining or underlining, but you can also sew the cup to an available facing. Hand-sew the top edge of the cup to the lining between the dress and lining using a catchstitch. The bottom edge is left free.

ENHANCING THE BUST

Gel or silicone enhancers (above) are very realistic—they add volume in a natural-looking way. A standard bra cup can hold them in place when a bra cannot be worn. These "cutlets" can be hot and have a tendency to shift, but a sewn-in cup pocket keeps you cool and the enhancers well positioned. [WardrobeSupplies.com]

Support strapless gowns from the waist

The strapless dress is supported from the waist, not the top of the bosom. A strapless dress is really a bra itself. Be sure the breasts are lifted into the cup properly before zipping the dress.

THE THREE THINGS TO AVOID ON A STRAPLESS DRESS:

1. A bosom spilling over the top of the dress

The top edge of a strapless dress should not be tight. If it is, the flesh spills out. Shape the top edge of the gown in a subtle funnel shape, as shown at right.

2. An empty dress

When the bosom slides under the lower edge of the cups, it leaves them hollow. To prevent, boost the breasts with a demi-cup lift and be sure the bodice is snug.

3. A dress that falls down

The waist stay, combined with boning and a snug bodice, holds up a strapless gown.

PLAN FOR WARDROBE MALFUNCTION

A strapless dress places extra tension on the zipper. Sometimes, if it's really tight, you can see the teeth or, even worse, the tension can cause the zipper to separate. As a precautionary measure, I sew hooks and thread eyes every 1½ inches down the zipper and under the flap, as shown at right. If the zipper "blows," the dress will always be secure.

A LACE-UP STRAPLESS DRESS IS LIKE A CORSET

These dresses often compress the bosom, and sometimes a double cup (right) is required to make the breasts look natural. Just insert a smaller cup inside a larger molded cup to increase volume and firmness.

I use double cups on A cup sizes, 1½ cups on a B cup, and a demi-cup lift on C and D cups to maintain the look of a divided bustline.

Backless doesn't mean braless

Backless dresses present a different set of problems—how to create horizontal tension without crossing the back.

If the back opening doesn't extend lower than the waistline, a waist stay can provide needed support. Boning and corset-type support isn't usually present, so you may have to hide all of the support inside the shoulder straps or disguise it as a second pair of shoulder straps. The shoulder straps create the tension that's required for lift. Here's how:

Attach a pair of cups together at the center front with elastic; add a strip of elastic from the top side edge of the cup, around the shoulder, and back to the lower side edge. A tiny wedge of fabric or elastic sewn between the cup and the elastic holds it properly in place.

Once the elastic is fitted to your body you can incorporate it into the gown by sewing it into the dress between the fashion fabric and the lining or by covering the straps with the dress fabric to make it look like a design element.

Ready-made rescue

It's possible to alter ready-made undergarments for a custom fit.

LONGLINE WAIST SLIMMING

Full-busted women with slender waists sometimes have difficulty finding a ready-to-wear bra that fits. To narrow the waist, first mark a vertical line on either side of the back opening to establish the dart placement. Carefully remove the stitching that holds the hemline elastic as far from the center-back opening as needed to add the dart, sew the dart on the right side, and topstitch it into place.

TUCK THE CUP

Women who have a large rib cage compared to their bust size often buy a longline bra that fits around their waist but has cups that are too big.

Alter cups by sewing a tuck in the cup below the "shadow" of the bust at the midpoint of the breast.

Use a sling for halters

Unsupported breasts usually move toward the sides, and they don't have natural lift or cleavage.

To correct the sideways pull of the breasts on a halter dress, I use an elastic sling. This is a length of 2½-inch-wide nonroll elastic that circles under both breasts and is held by narrower elastic around the neck. I shape the elastic under the breasts with darts, which I usually cut, lap, and sew by hand.

Cup sizes of C, D, or DD hold the sling in position without a problem. Smaller sizes may need to anchor the sling in the front to a waist stay. Any version can be used with or without cups.

BACKLESS SOLUTIONS: BRA TO WAIST STAY

If the dress has a waist stay or you can add one, it's possible to use your favorite bra, attach two bra-back extenders to the waist stay, loosen the bra straps, and hook them to the bra-back extenders on the waist stay, as shown above.

RIGID CONSTRUCTION GOES UNDER COVER

Bras for full-figured women usually have seams across the breast. These seams actually supply lift and shape to a full breast but can show through soft, drapey fabrics. Sew thin, seamless cups over your bra cups to smooth over the seams. Use a featherstitch to sew around the edges.

KEEP A BRA IN LINE

Sew ribbon belt loops on each side of the center-back zipper to keep your bra from riding up in the back. Put on the bra and the dress; then hold your bra in place while someone unhooks it, passes each end through a loop on the dress, rehooks the bra, and zips up the dress.

5 Steps to a

You don't need measurements–

by Peggy Sagers (from issue #114)

The ability to fit a pair of pants seems to be an elusive skill for many sewers, but my experience in the garment industry, and as a home-sewing teacher, has proven time and again that there's no need for pants-fitting to be a stumbling block. With a little help from a friend, you can whip any basic darted slacks pattern into shape in five quick steps, by simply pin-fitting a muslin, as shown on the following pages. I'll also show you how to use this muslin to correct the fit of any pants pattern that catches your eye, by tracing the muslin outline onto the new tissue. Let's banish this struggle over pants-fitting, forever.

Prepare your muslin

I suggest you start with a basic slacks pattern you've made before, so you know generally how the pattern fits. In any areas that felt snug when it was last made, shift the

The keys to easy slacks-fitting are muslin, pins, narrow elastic, and a friend to help.

Model photos: Joseph Kugielsky; makeup: Dawn Sa; drawings: Carol Ruzicka; top right photo on p. 11: David Page Coffin

Perfect Slacks Pattern

just look at the wrinkles to see where to make a few simple adjustments

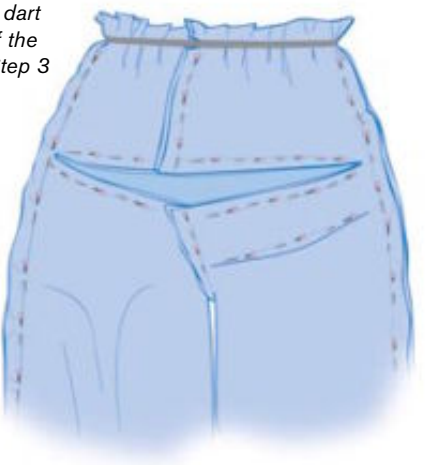
seamlines outward so the muslin version of the pattern you'll make will be a little loose all over, and add an extra inch or more of seam allowance above the waistline. It's better to start a little bigger simply because it's easier to pin out extra room than to slash and patch an area that's too small. You can also just start with a bigger size than you'd typically use, and extend the waistline seam allowance. If your pattern requires a front pocket piece to create a complete side seam, be sure to tape the pocket piece in place on the pattern before you cut, so your muslin will have a full side seam.

Some figures require the addition of extra length in back, beyond what simply adding to the waist seam allowance can provide. You'll know you're in this camp if your waistline is always pulled down into a V in back, even when you're standing up. Muslins for these figures have to be slashed and patched, as shown at right, as part of the pin-fitting process. As you can see from the drawing, this addition doesn't eliminate the possibility that you'll also have to take a horizontal dart to correct the drape of the pants leg.

Before you cut anything out, check the distance from the center front and center back to the nearest edge of the first or center dart. This should be around 3½ inches on a size 6, 4 inches on a size 8 to 12, and 4½ inches on a size 18 or larger, and you should move the center darts if they're not

Slash and spread to lengthen a short back crotch

Slash the muslin from side seam to side seam, spread to provide the needed length, and fill the gap with scrap muslin. Then, if the legs are droopy, pin out the excess length with a horizontal dart at the top of the thigh, *see Step 3 on p. 10.*



STEP 1

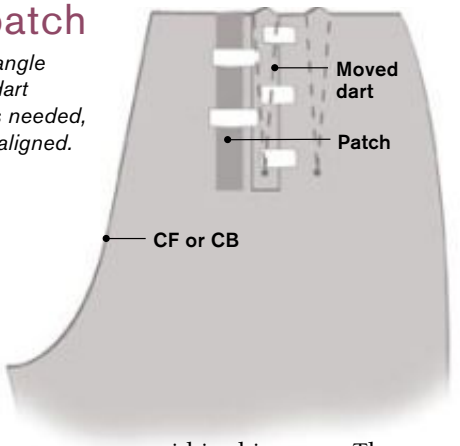
Evaluate the fit and position the waistline

From front or back, the crotch on these pants is too long, the legs are too loose, and the back legs are drooping. The wearer should pull up or down on the waistline to position the crotch depth comfortably. Adjust the waist level and upper side seams on both sides (as shown at right) to secure the preferred position. On this model, the center back seam is a little long; it will be corrected later. However, if the back seam is too short (causing the back waist to pull down in a V), that correction should be made now as shown in the drawing above.

To reposition a dart, cut, slide, tape, and patch

Cut out a narrow rectangle containing the entire dart and shift the cutout as needed, keeping the waistline aligned.

Tape the rectangle in place and fill in the open space with scrap paper.



within this range. There are no rules governing the placement of the side dart; it's a visual decision. To move a dart, simply cut it out as shown above, and shift it along the waistline seam, taping it in place along with some scrap paper to fill in the hole it left. This placement is important for establishing the grain on your draped muslin, as you'll see, and it's universally flattering, as well as being a ready-to-wear standard. If there are two darts on the front or back pattern pieces, it's not necessary to shift the outside one unless you think it will look better.

Cut out your pattern in any medium-weight to lightweight fabric (avoid stripes or checks, they distract your eye), and sew it with the side and center seam allowances and the darts to the outside so you'll be able to adjust them easily. Leave the opening at the center back. The additional steps to fit the muslin are demonstrated in the photos on pp. 9-12. You'll simply look at the wrinkles and test the wearing comfort to know where to adjust your pattern. It's only necessary to fully pin one side of the figure, unless the two sides are noticeably different.

STEP 2

Adjust the leg and check the sitting comfort

Pin the side seam to correct the hip and leg circumference as needed. Pin to the hem on one side only, folding up the hem to allow the fabric to drape smoothly to the foot. Pin the opposite side seam to match from the waist to at least the mid-thigh so the seated comfort can be evaluated. Sit down to check the fit, then readjust the waist or legs if needed.

STEP 3

Adjust the leg drape and dart lengths

To smooth the wrinkles in back, pinch the center back seam horizontally, level with the fullest part of the rear, creating a dart that tapers to nothing at the side seams. Pinch out as much as is needed to create a smooth fall from this dart to the hem. Pin the dart from the center to both side seams. Check the vertical darts to see that they end near the apex of the contours they fit, pinning or releasing them as needed. Most darts are too short. Repeat these steps in front if necessary.

The muslin is your new pattern, and a template for fixing other pants

When you're completely happy with the fit of your muslin, take it off and carefully mark the corrected seamlines on the muslin, then take it apart without undoing the horizontal darts, created in Step 3 of the pin-fitting process, or removing any inserted patches. As long as both sides of your fitted muslin are the same you can apply all the following steps to the front and back pieces of a single leg. Trim each seam allowance to a uniform distance from its seamline—⅜ inch is a good choice if you'll be using the muslin to correct a lot of commercial patterns—and draw a grainline/crease line perpendicular to the hemline from the bottom edge to the tip of each waist dart; use the inside one if either piece has two darts. Compare your corrected waistline seam length with the original pattern and add or subtract length from the original waistband pattern by the same amount.

Your muslin is now a corrected version of the pattern you started with, and you can cut from it directly, or trace it first onto paper or card stock. If you want to make basic darted slacks with different leg widths or pocket details, simply transfer these details onto a tracing of your corrected pattern, preserving the shape and darts from the crotch level up. The only dimension of your new pattern that may need tweaking to work in all fabrics is the circumference, so it's a good idea to cut an extra ¼-inch seam-allowance width at the side seams and pin-fit these when you're working in an unfamiliar fabric.

To use the muslin to correct patterns with different dart styling or dart alternatives at the waist, including pleats or yokes, first pin out the darts on your muslin pieces.

Use your muslin to fit pants of other styles, too

If you want to correct the fit of another style pants pattern, trace the muslin's outline onto it. First pin out the darts on the muslin, and fold or pin out the darts or dart equivalents on the pattern. Then place the muslin over the pattern, aligning the pants legs and the crotch levels at the inseam. Mark the outline of the muslin onto the tissue above the crotchline.

STEP 4

Check and adjust the crotch curve in back

Wrinkles from excess room below the crotch curve in back are a common problem, as shown below. Correct this by pinning the center back seamline closer to the body below the horizontal dart until the wrinkles smooth out, at right. The same problem can occur in front.

Fold out or pin together the new pattern's darts or equivalent details (and include any pocket details needed to provide a complete side seam), then place each pinned muslin piece on top of the corresponding pattern piece with the crotch level and inseams near the crotch aligned. Trace the muslin's outline onto the paper pattern above the hipline, as shown in the top right photo on p. 55, including the center seams, waistline, and side seams. This process ensures that no matter what details provide dart shaping at the waist on the new pattern, when they're constructed, the fit of the pants above the hips will be essentially the same as on your muslin. Give it a try. ♦

Peggy Sagers writes and designs patterns in Dallas. You can reach her on her Web site, www.silhouettepatterns.com.

It's a good idea to cut extra seam-allowance width at the side seams and pin-fit these when you're working in an unfamiliar fabric

STEP 5

Mark the waistline and evaluate the results

Tie a narrow elastic around the waist and position it at the preferred waistline, then trace it with a marker to create a final waist seamline. Evaluate the drape of the fully pinned leg from front and back and tweak your pins as needed. Finally, it's a good idea to take off the tweaked pants and stitch each pinned alteration, so you can remove the pins and test the fit with complete freedom to move, sit, and stretch.

A second muslin, cut and sewn from the first, proves the "fitting" successful.

Next article to start on next page

Adjusting Waist

To fit the crotch area, consider depth and width. Then transfer your adjustment to the side seam

BY JOYCE MURPHY
(from issue #122)

Frustrated by the way pants fit? If I were a betting woman, I'd take ten-to-one odds that the crotch area is what causes you grief. It does for most women. The simple fact is that the female form is curvy and women's lower torsos, in particular, come in an infinite variety of shapes and sizes. Pants truly are the most complicated of garments because they need to fit in many different directions—around the hips, waist, and legs, as well as under the body. Simply put, one pair of pants does not fit all.

I've had the opportunity to create and fit pants on thousands of women. I've studied these two-legged garments and their patterns from every conceivable angle and eventually developed a way to clearly see and evaluate the space a body takes up in a pant, which I found to be the key to good fit (see facing page). From there, I worked out a foolproof method for making pattern adjustments along the center-back and center-front seams (see pp. 18–19). As you read my explanation on the following pages, all I ask is that you set aside any preconceived notions you have about pant fitting. Like the many students and employees I've mentored over the years, once you understand my basic theory, pant fitting will finally start to make sense, and you'll be amazed at how straightforward the adjustments can be.

Joyce Murphy (JSMPatterns.com) creates custom pants in Alpena, Michigan; teaches pant-fitting workshops; and is a member of the Professional Association of Custom Clothiers (PACC).

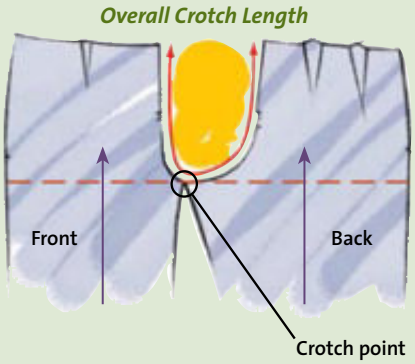
Pants from to Seat

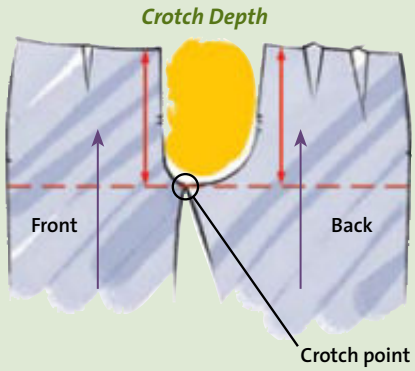
Train your eye to see the space in between. *To clearly see the negative space in a pant, which the body core fills, sew one leg of a pant pattern or turn a fully sewn pair of pants inside out with one leg inside the other.*

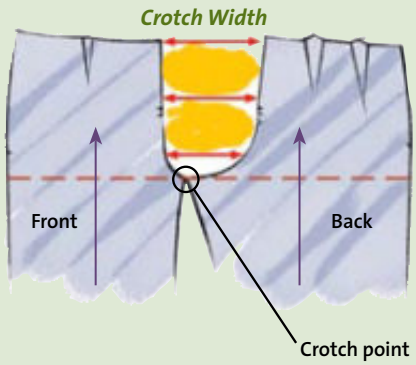
The Secret to Fitting Pants is Understanding Body Space

Pants are a challenge to fit because you need to not only fit fabric around the lower torso and legs but also get the right size and shape inside the pants. Most patterns and drafting books refer to this area as "crotch length"; I instead call it "body space" because, as you'll see at right, the size and shape of this area depends not only on length but also on depth and width.

I discovered body space one day when I was drafting a pant pattern for a client. I placed the front and back pattern pieces together with the crotch points touching, the grainlines parallel, and the hemlines aligned, as shown at right. It was a moment of epiphany—that empty space between the two pieces had a shape all its own, and I realized that this negative space was the most important part of a pant.







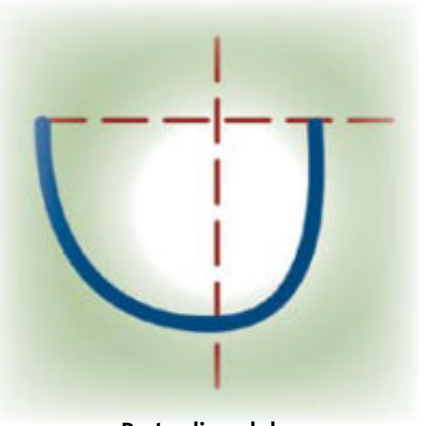
Overall crotch length *is the measurement of the center-front and center-back seamlines added together.*

Crotch depth *is the distance from the bottom of the waistband at center front and center back straight down to the level of the crotch point. NOTE: Depending on body type, the two distances may be different.*

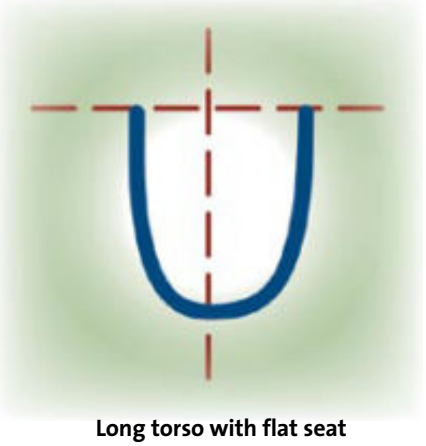
Crotch width *is the horizontal measurement across the body space. Because the center-front and center-back seamlines are curved, this measurement will be different at the top, middle, and bottom of the space.*

Same crotch length, different body spaces

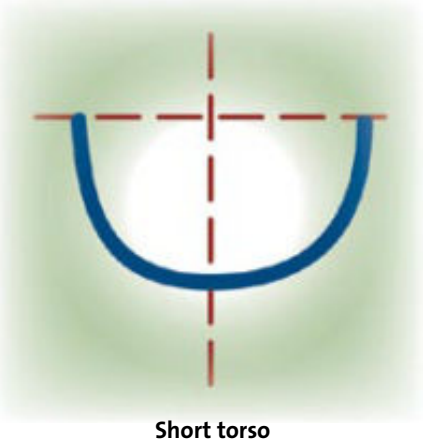
To illustrate how overall crotch length isn't the only indicator of the size and shape of the lower torso, we took the same crotch length and formed it to fit common body shapes. These are side views, as are the illustrations on p. 15; the horizontal dotted line indicates the waist and the vertical dotted line indicates the center of the body. I think you'll agree that one pant pattern won't fit all of these women the same way.



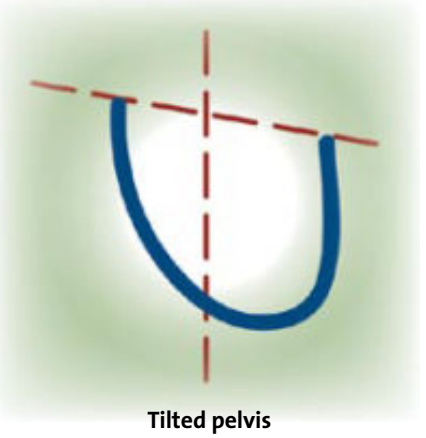
Protruding abdomen



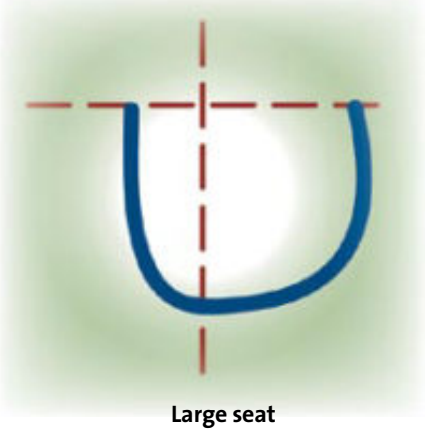
Long torso with flat seat and stomach



Short torso



Tilted pelvis



Large seat

tip

Find your body space with a flexible curve

This plastic-covered metal rule can be found at art stores or at DickBlick.com; look for one that is at least 24 inches long. The rule is soft enough to bend around the body, yet it holds its shape so you can step out of it and get an instant reading of your particular body space.

A LITTLE BACKGROUND . . .

Fit First, Adjust Later

As described in my article "To Fit Pants, Start at the Waist" in *Threads* issue 119 (June/July 2005), I sew my pant pattern straight out of the envelope in muslin or other inexpensive fabric, including the waistband. Because the hip is the most challenging area to fit, I choose a pattern size based on that measurement, even if the waist is larger. Here's a synopsis of how I fit these handy "test pants" from the waist down.

1. **Size and position the waistband.** Pinch out a too-big band on either side of the zipper, or insert stabilizer in a too-small band.

2. **Adjust the fit in the body core.** Pin out the excess between the abdomen and hiplines to shorten the crotch depth. I've found that most women need this adjustment.

3. **Make more or less space for the body core.** Keep the theory of body space (see p. 15) in mind as you evaluate and adjust at the center-back seam. If the fabric is snug and pulls across the seat, make more room for the body by pinching out fabric along the center-back and/or center-front seam. Most of my students initially struggle with this step, as it is counterintuitive to fitting in other areas of a garment. (For example, if a sleeve is too tight in the forearm area, you let out the seam.) The crotch area is different: To increase body space, you need to remove fabric, which translates to pinching out fabric. To decrease body space, you need to add fabric.

Photos, except where noted: Sloan Howard; step-by-step photos (p. 17), Jennifer Sauer. Drawings: Linda Boston

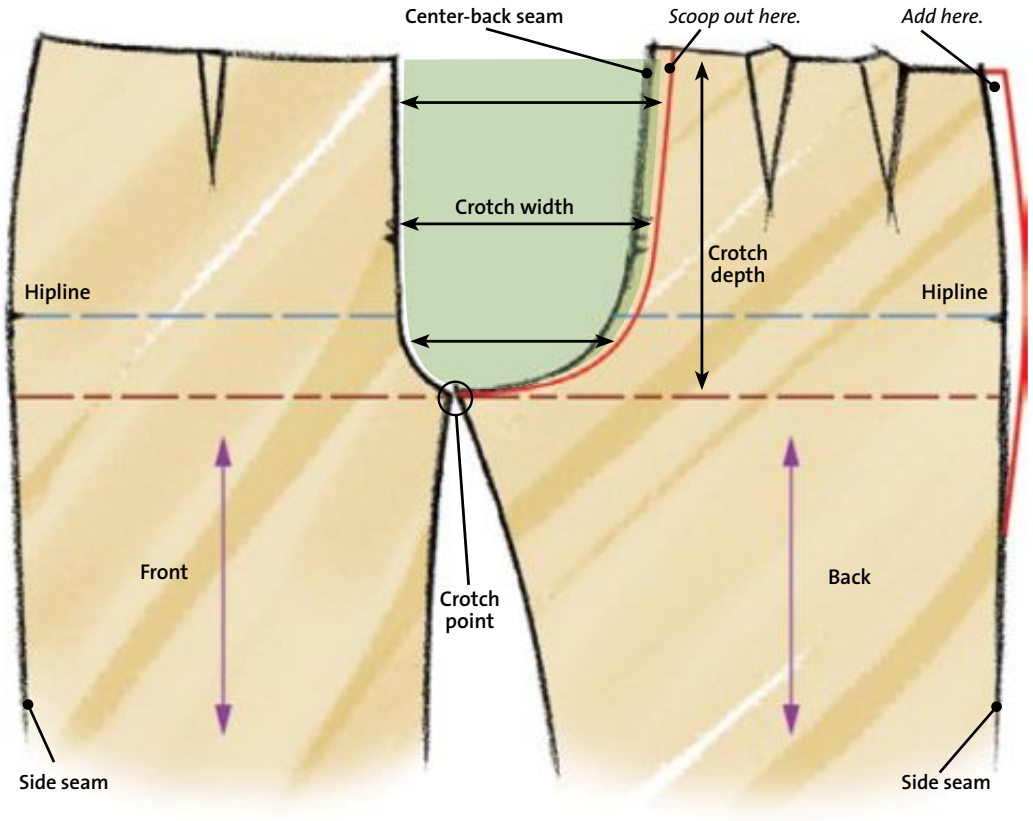
To Accommodate Body Space, Transfer Your Adjustments

By adjusting the center-front or center-back seamline to fit your body space (this is the amount you pinched out or added in step 3 on p. 17) and then redistributing that amount to the side seam, the fit remains the same everywhere else. And the grainlines aren't disturbed.

NOTE: When you measure the pinned adjustment from your test pant and transfer it to the pattern, split the difference because two fronts and two backs will be cut.

To create MORE body space . . .

SCOOP out the center-back seam, then add that same amount to the side seam. This adds crotch width without increasing crotch depth.



tip

Adjust the back or front

The illustrations above demonstrate adjustments to the back pattern piece, but depending on your particular body space, you may need to adjust the front instead or make adjustments to both the front and back.

The old ways just don't work as well

If you've struggled with crotch alterations, it is probably due to the pattern-adjustment method you are using. The two traditional methods have built-in flaws.

WHY SLASH-AND-SPREAD DOESN'T WORK:

To increase crotch length, the pattern is slashed at the hip and spread open. To decrease length, the pieces are overlapped.

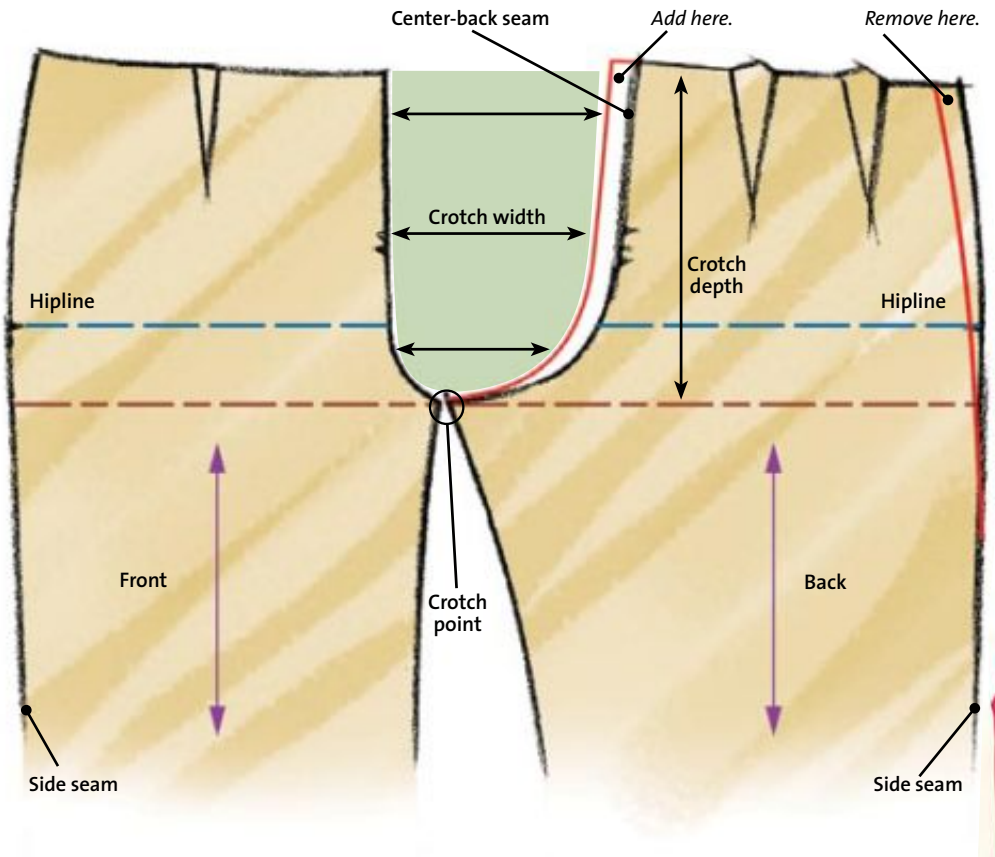
1. This causes body space to change above the hipline, but most women need the change between the hip and crotch level.

2. Spreading also increases the center-back seam angle, which creates wrinkles below the seat. Overlapping causes the center-back seam to become too straight; the angle is needed for comfortable walking and sitting.

3. The grainline shifts, so the pants no longer fall straight from the waistband.

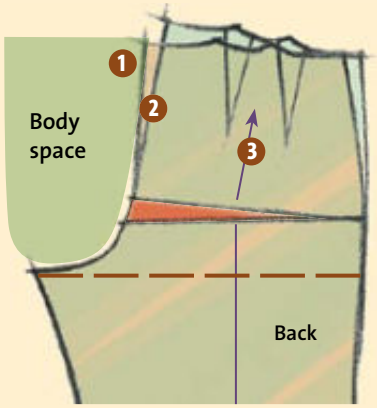
To create LESS body space . . .

ADD to the center-back seam, then remove that same amount from the side seam. This removes crotch width without decreasing crotch depth.



When a pant fits well around and under the torso, the fabric doesn't pull, tug, or puddle when you sit.

Slash-and-spread



WHY ADDING TO THE CROTCH POINT DOESN'T WORK:

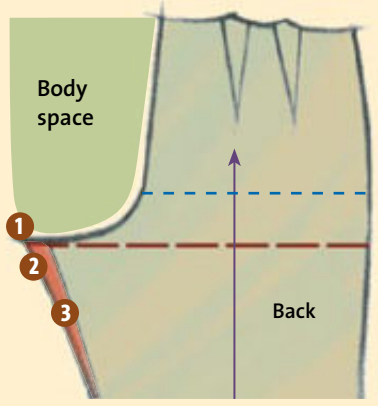
To increase crotch length, an amount is added to the crotch point. To decrease length, it is removed from the point.

1. This causes body space to change below the seat, which doesn't work for all women.

2. The excess fabric is added to the inseam, which creates more wrinkles but not a better fit through the seat.

3. Fabric is added to the thigh area, which isn't attractive. Removing from the crotch point makes fabric snug in the thigh.

Adding to the crotch point



Make a Pattern from

Masking tape and a few other necessities

BY JEAN HAAS
(from issue #120)

Choose the right tools for the job

Base your choice of tape on the weight and drape of the garment's fabric. For lightweight and medium-weight fabrics, including light-weight silk, rayon, slinky knit, and similar fabrics with a delicate hand, use either masking tape or medium-tack painter's tape. Medium-tack tapes release easier, but they can also separate easily. Heavier and denser fabrics like denim, Ultrasuede, heavyweight corduroy, and twill may require duct tape (I recommend Manco/Henkel brand) for a substantial and firm transferring medium. Always test your tape/fabric compatibility before covering your garment with tape. And never leave any tape on your garment for more than an hour or two.

Choose a pattern medium

I prefer using the nonwoven Pellon type pattern papers because they are strong, soft, and easy to handle. Muslin also makes an excellent transfer medium. Pattern tissue works but it isn't as forgiving and sometimes adheres to the tape before you want it to.

Have the following tools available:

- 5/8-inch-wide tape measure
- Pins
- Permanent, fine-point pen
- Scissors
- Yardstick
- French curve and/or hip curve (optional)

Ready-to-Wear

are all you'll need to pull it off

You can copy the best-fitting pants you've ever owned, or the 50-year-old dress you found in the attic after the moths ate the left sleeve. Perhaps you want to capture a fabulous pocket detail, or the perfect shape of the lapel on a favorite jacket. There are all sorts of reasons for wanting to copy a ready-made garment. Here's a great way to do it.

A fast and easy way to make a pattern from a ready-to-wear garment, without snipping any stitches, is to copy the garment with tape. To demonstrate how it's done I'll walk you through the steps of copying a simple pair of pull-on pants. However, you can copy any garment: a blouse, jacket, coat, or even your sofa upholstery.

The process isn't hard: Tape an outline of the seams; fill in the void as shown at right; transfer the taped shape to your pattern medium; and then add the hem and seam allowances.

Most of the time I work from the inside of the garment so I can see the exact stitching lines. But you can take a pattern from the face of the garment as well, which is necessary for lined garments.

Gather your tools, test your fabric

First, gather your tools as listed on p. 20, then turn your garment inside out, and lay a strip of tape inside the hemline to test the fabric and tape compatibility. You don't want to tape an entire garment and then discover that the tape pulls out the metallic thread. Even though I've never had problems working on any fabric with the tapes I recommend, it's a good idea to test them first.

Tuck one leg inside the other and position your pants inside out with the back crotch on top and fully exposed. Now you're ready to start taping.

1 Outline the seamlines

Use ¾- or 1-inch-wide tape torn into strips about 1½ inches long, and abut the long edge of the strip along the stitching line of the crotch seam as shown at right. Then overlap the strip ends so they'll hold together when you remove them later as one piece from the garment.

Tape up to the seamline but not onto the seam allowance. Once you've outlined the crotch seam, proceed down the inseam in the same manner. When you reach the hemline, tape horizontally against its edge. Continue taping along the seamlines until you've built an outline of the leg's pattern piece.

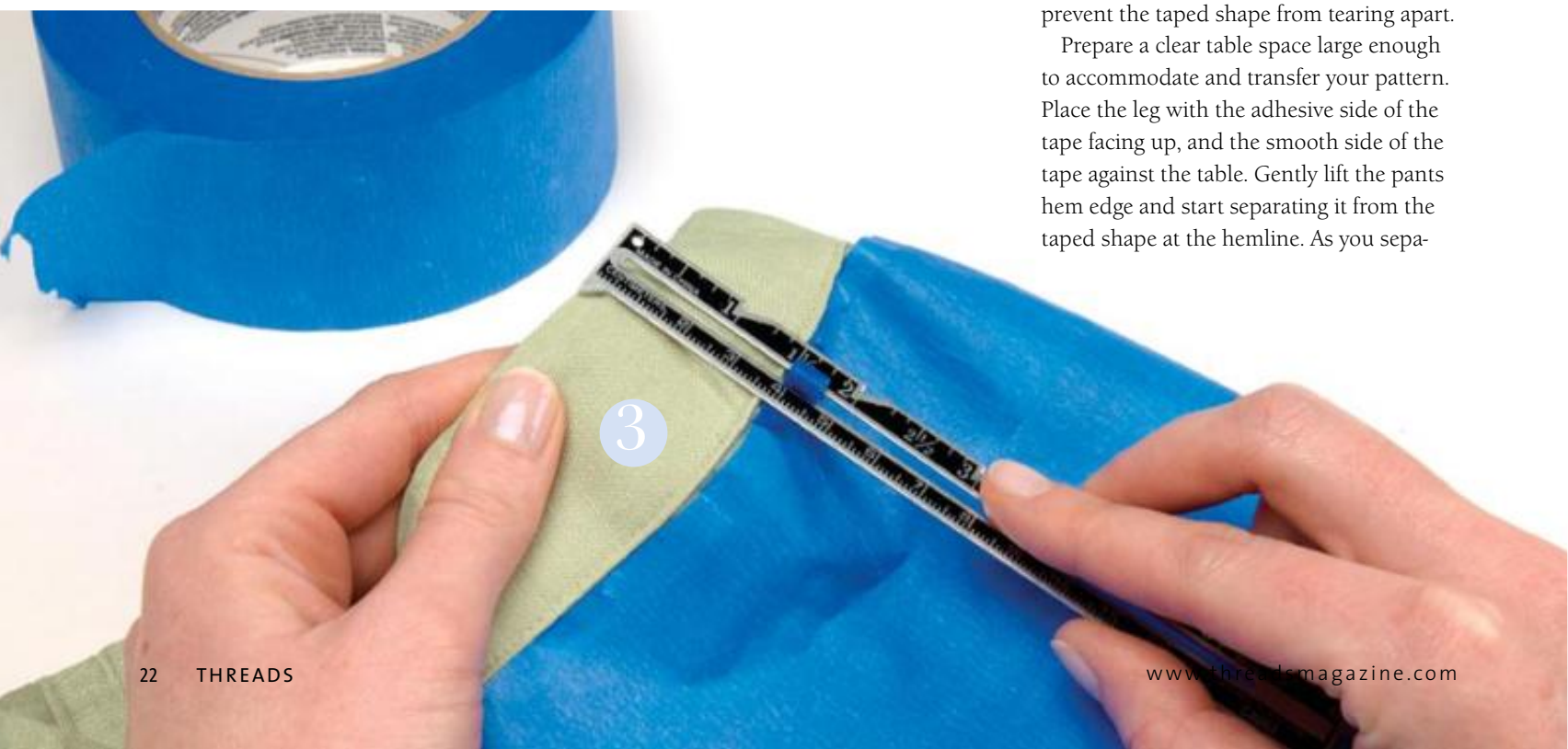
(continued on the following page)

2 Stay inside the lines when you tape the void

Once you've outlined the seams, fill in the leg with 2-inch-wide tape, starting horizontally at the hemline and ending at the waistline. Overlap each 2-inch-wide strip and the outline tape as shown above to ensure that your taped shape won't pull apart when it's removed from the garment.

As you fill in the leg with tape, pull out the other leg to keep your fabric flat. Make sure to smooth out the wrinkles as you affix your tape horizontally from the hem up to the waist.

As you work your way up the leg and approach the crotch wedge, use narrower tape or tear your 2-inch tape in half if needed to accommodate the smaller area.



3 Taping an elastic waist requires some pull

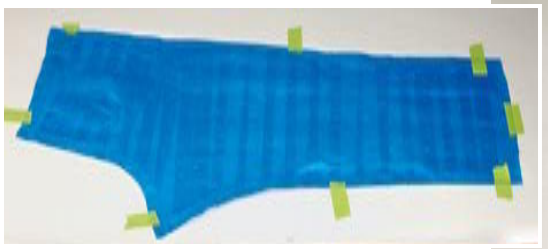
At the waistline, stretch out the elastic where it gathers the fabric so you don't tape in wrinkles or pleats. You can do this by pulling the pants over an ironing board or recruiting an extra pair of hands to help hold the elastic taut until you capture the desired shape. Tape up to the base of the elastic. Then, measure the width of the elastic and the amount of fabric turned over for the casing (see the photo below), and make note of this distance to use later.

If your pants have a waistband instead of a folded casing, tape an outline of the waistband in a later step. If your pants have a dart, see "How to copy a dart" at the bottom of p. 24.

4 Move slowly for no-tear removal

Once your first pattern section has been outlined and filled with tape, it's time to remove the taped shape from the garment. First, make sure you have established complete tape cover. Fill in any missing areas and check for ample tape overlap. As an extra precaution, especially if you've used medium-tack tape or masking tape, you can apply a strip of duct tape down the length of the pants leg to prevent the taped shape from tearing apart.

Prepare a clear table space large enough to accommodate and transfer your pattern. Place the leg with the adhesive side of the tape facing up, and the smooth side of the tape against the table. Gently lift the pants hem edge and start separating it from the taped shape at the hemline. As you sepa-



rate the pants leg from the taped shape, use small pieces of tape to hold the edges to the table and prevent it from shifting (photos top and right). You don't want the taped shape to fold over onto itself by accident. Continue lifting the fabric by rolling the pants leg out of the way to release the entire taped shape.

5 Transferring the tape to your pattern paper

Cut your pattern paper 6 inches longer than the length of your pants leg, which allows ample extra length for hem and waistline considerations. Roll the pattern paper lengthwise. With several inches of tissue extending below the hemline, carefully unroll the paper and attach it to your taped shape (see the photo at right). Go slowly and unroll only an inch or so at a time, smoothing the paper before proceeding until the entire taped shape is transferred to the pattern paper. When you've covered all of the tape, gently lift and turn the pattern paper over to see your captured pattern shape.

Now that you have finished taping and transferring the leg back, replicate the leg front following the same process. If you are copying a garment other than pants, the method is the same: Outline the seams and fill in the void with tape, transfer the taped shape to pattern paper, and proceed to the next pattern piece. A sleeve requires taping in the round, which is simplified by placing a sleeve board inside the sleeve.

Photos: Sloan Howard

(continued on the following page)

6 Add seam allowances, hem allowances, and waist information

After you've transferred the leg front and back, compare the side seams and inseam lengths, and if they aren't the same, correct them as needed. Extend the waistline twice the width of the elastic and mark that amount above the tape shape along the waistline (see the near photo below). Treat the hemline exactly like the waistline, adding the same amount of hem allowance used on the original garment.

Before drawing in the seamlines, fold over your pattern paper along the hem and waistline so that you retain the correct shape when you add seam allowances. Tape the folded edge down so it doesn't move.

Many tape measures are ⅝-inch wide. To simplify marking a seam allowance, just lay one edge against the side of the leg seamline and draw in your seam allowance along the opposite edge. Alternatively, use a clear gridded ruler to mark your allowances on the pattern medium.

Continue adding seam allowances to all sides of the pattern (excluding the waistline and hemlines, which are otherwise edge-finished). Cut the folded hemline and waistline seams on the new cutline you established by adding the seam allowance.

7 All patterns need grainlines

Fold the pants leg in half aligning the inseam and side seam from the hemline to the knee, and then crease the leg to form your grainline (see the photo below). Realize as you crease the grainline that it only lines up and matches below the knee. Don't try to make it line up any higher because many times it won't.

For other garments, you can identify many of the pattern grainlines by locating the center-front or center-back lines. But if I'm copying a pattern piece that doesn't have an obvious grainline—such as the side-front panel of a princess style jacket or dress—I identify the grainline on the original garment and mark it on the tape while it's still affixed to the garment.

How to copy a dart

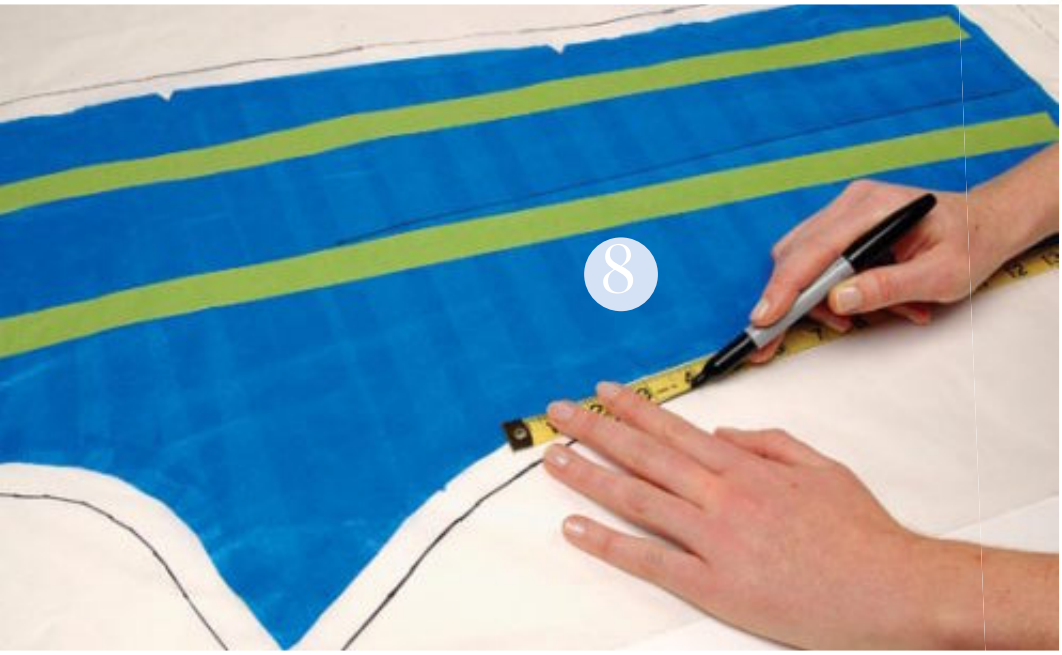
Tape the section containing the dart while the garment is on your body or dress form. Mark the dart line on the tape. Cut along the dart line after you separate the tape from the garment. When you flatten the pattern, the dart will appear.

8 Notch your patterns to simplify construction

Once you've copied the front and back pants leg pattern pieces and added seam allowances, pin the front and back side seams together, and mark both pieces at the waistline, hipline, knee, and hemlines. Use these marks to make notches to aid sewing accuracy during construction. And mark your pattern pieces as front and back to avoid confusion.

Now that you understand the simple steps, you can repeat them for copying much more complicated patterns. It's always a process of taping one piece at a time. Below, you'll see how to copy a dart and two different pockets. Once you grasp these techniques you should be able to copy anything. ♦

Jean Haas travels the country educating sewers. Visit DressFormDesigning.com to learn about her videos.



With elastic casing and seam and hem allowances added, your pattern is ready to use.

Perfect patch and inset pockets

Capture the shape of garment details, such as a patch pocket, with tape. Follow the same steps as for a full pattern piece. Use smaller pieces of tape. Pull the tape off from the top. Apply it to pattern paper, and add seam allowances.

Capturing the shape of an inset pocket couldn't be easier—just copy the leg from the outside of the garment and the pocket from the inside.

How to Take

For the perfect fit, take the right measurements, in the right way

The key to perfecting any pattern, computer-generated or hand-drafted, lies in gathering specific information about the body to be fitted. Although pattern design is an art, taking measurements is a science. Fortunately, the process is systematic and logical, and with time and a patient measuring partner, you can be confident in the accuracy of your measurements.

By following my steps you will acquire a set of measurements to use for fine-tuning the fit of commercial patterns or creating hand-drafted designs. And if you are working with pattern-drafting software, you'll be able to adapt my methods as you follow brand-specific instructions. (Each company has its own marking and measuring protocols that you should follow exactly to get good results with the software.) Accurate measurements can also help you compare the corresponding sections of your favorite garments to discover and understand the amount of wearing ease you prefer.

Preparation is everything

The prerequisites for accurate measuring are deciding the appropriate garments to wear while being measured and marking key reference points on the body.

What to wear

Body shape, and subsequently fit, can be greatly affected by the undergarments worn when

Mark reference points

Mark the body so you'll have consistent reference points while you measure. (The solid lines on our leotard are extra-bold for photography purposes.)

A Neckline

Identify the natural neckline with a short chain necklace that settles comfortably, just below the slight hollow at the base of the neck.

- Mark the exact center front of this neckline with a small adhesive or pen dot.
- Mark the prominent vertebra at the top of the spine with an adhesive or pen dot. (Bend the head forward to make the vertebra easier to find.)
- Mark a point on each side of the neck, in line with the hollow just behind the earlobe.

B Bust point

Mark the nipple location with a cross of two pins on the bra fabric or with an adhesive dot.

C Shoulder point

Feel for the end of the flat bone at the end of the shoulder, or raise your arm until a dimple appears at the end of your shoulder and feel for the shoulder bone in this depression. It is important to identify an exact shoulder point.

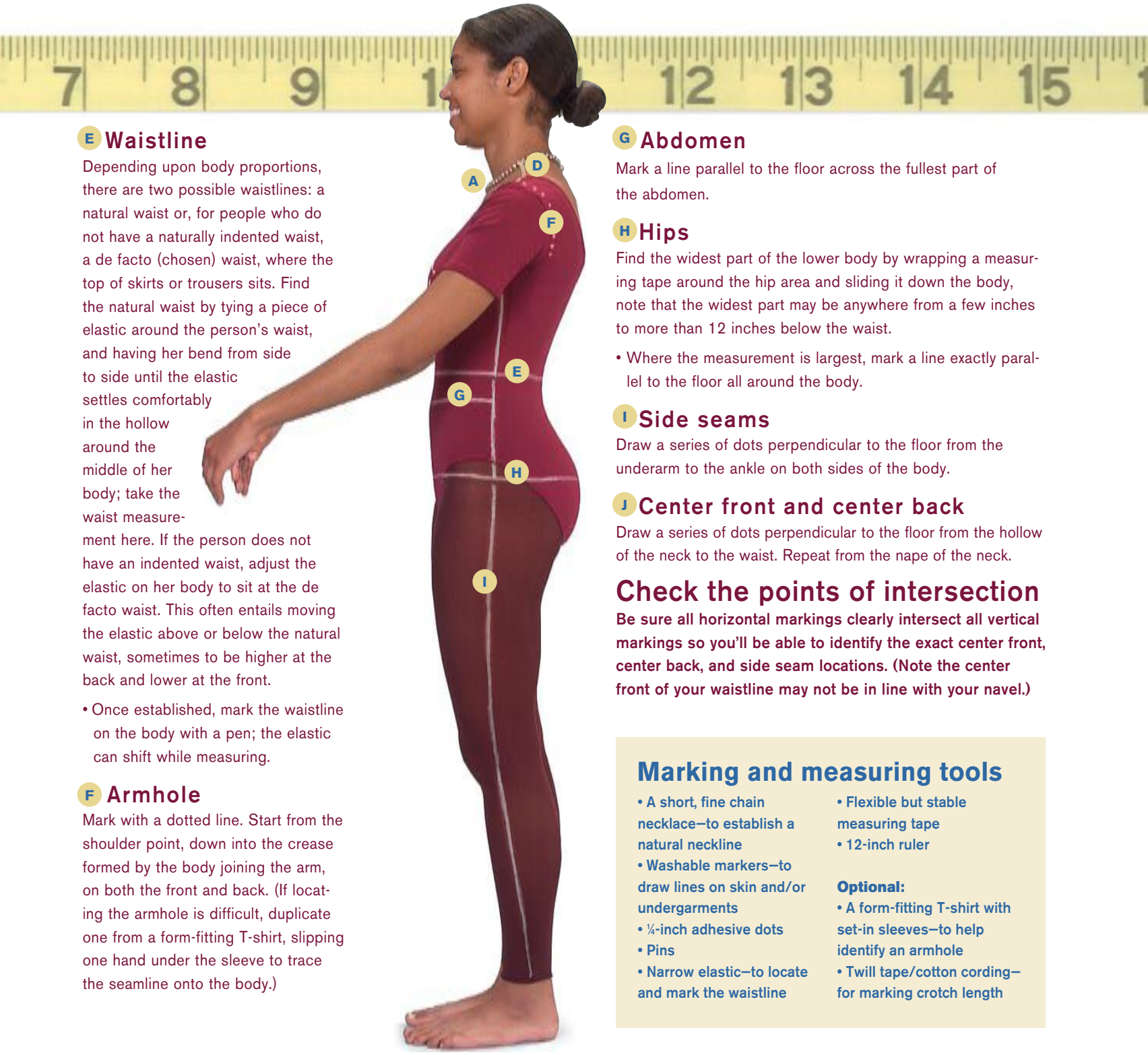
- Mark it with an adhesive or pen dot.

D Shoulder seamline

Draw a series of dots (more accurate than a drawn line) on the body, from the side-neck point marked on the neckline, along the top of the shoulder, to the shoulder point.

Measurements

by Barbara Emodi
(from issue #106)



E Waistline

Depending upon body proportions, there are two possible waistlines: a natural waist or, for people who do not have a naturally indented waist, a de facto (chosen) waist, where the top of skirts or trousers sits. Find the natural waist by tying a piece of elastic around the person's waist, and having her bend from side to side until the elastic settles comfortably in the hollow around the middle of her body; take the waist measurement here. If the person does not have an indented waist, adjust the elastic on her body to sit at the de facto waist. This often entails moving the elastic above or below the natural waist, sometimes to be higher at the back and lower at the front.

- Once established, mark the waistline on the body with a pen; the elastic can shift while measuring.

F Armhole

Mark with a dotted line. Start from the shoulder point, down into the crease formed by the body joining the arm, on both the front and back. (If locating the armhole is difficult, duplicate one from a form-fitting T-shirt, slipping one hand under the sleeve to trace the seamline onto the body.)

G Abdomen

Mark a line parallel to the floor across the fullest part of the abdomen.

H Hips

Find the widest part of the lower body by wrapping a measuring tape around the hip area and sliding it down the body, note that the widest part may be anywhere from a few inches to more than 12 inches below the waist.

- Where the measurement is largest, mark a line exactly parallel to the floor all around the body.

I Side seams

Draw a series of dots perpendicular to the floor from the underarm to the ankle on both sides of the body.

J Center front and center back

Draw a series of dots perpendicular to the floor from the hollow of the neck to the waist. Repeat from the nape of the neck.

Check the points of intersection

Be sure all horizontal markings clearly intersect all vertical markings so you'll be able to identify the exact center front, center back, and side seam locations. (Note the center front of your waistline may not be in line with your navel.)

Marking and measuring tools

- A short, fine chain necklace—to establish a natural neckline
- Washable markers—to draw lines on skin and/or undergarments
- ¼-inch adhesive dots
- Pins
- Narrow elastic—to locate and mark the waistline
- Flexible but stable measuring tape
- 12-inch ruler

Optional:

- A form-fitting T-shirt with set-in sleeves—to help identify an armhole
- Twill tape/cotton cording—for marking crotch length

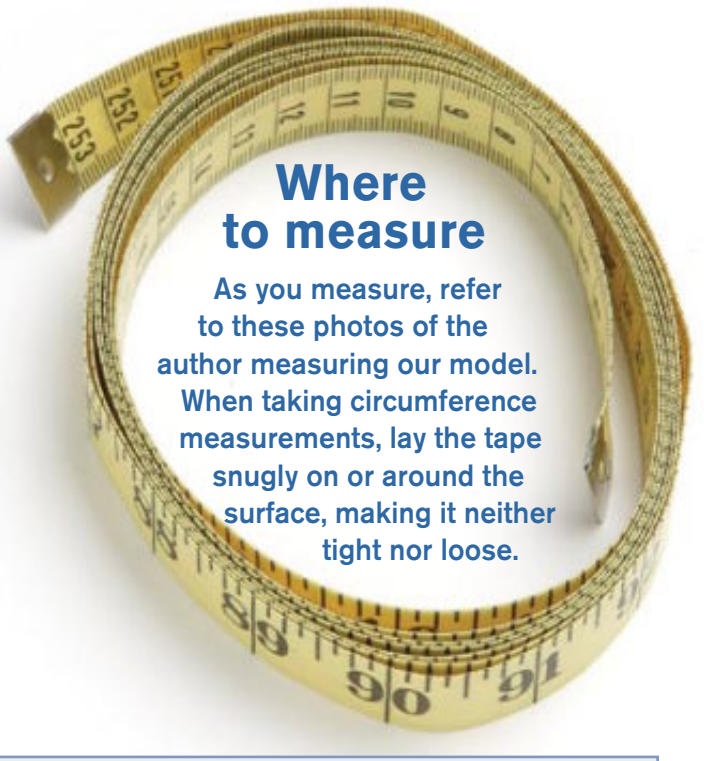
measurements are taken—bras in particular. To ensure an accurate fit, wear the undergarments you normally do. Be prepared to mark on them if necessary for recording reference points. We photographed our model in a leotard, but you'll get more accurate measurements if the person being measured wears only her best-fitting undergarments.

Gather your tools

The most important aid in the measurement process is a good-natured, discreet measuring buddy. (There's just no way to take accurate measurements of yourself.) Additionally, a few tools will be required to mark the reference points and measure the distances. I've supplied a list of these on p. 27 ("Marking and measuring tools").

Tips on measuring

Measurements should be taken with the subject standing with natural posture. Arm measurements should be taken with the arm relaxed and slightly bent at the elbow. Keep the tape smooth and level when measuring around the body, and don't measure loosely or with a finger under the tape to build in ease.



Where to measure

As you measure, refer to these photos of the author measuring our model. When taking circumference measurements, lay the tape snugly on or around the surface, making it neither tight nor loose.

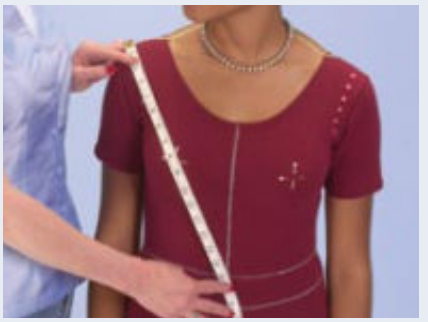
Shoulders

Shoulder length: Measure from the side-neck point to the shoulder point.

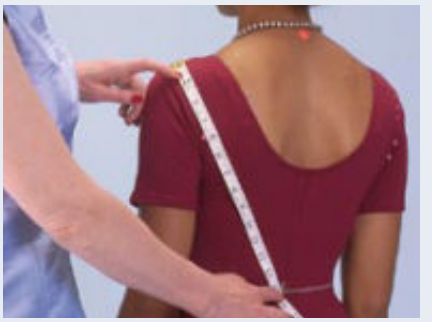
Shoulder-to-shoulder/front: Measure between the shoulder points in a straight line across the front.

Shoulder-to-shoulder/back: Measure between the shoulder points in a straight line across the back.

Back width: Measure between the armholes (make sure the tape doesn't get caught up in the shoulder blades).



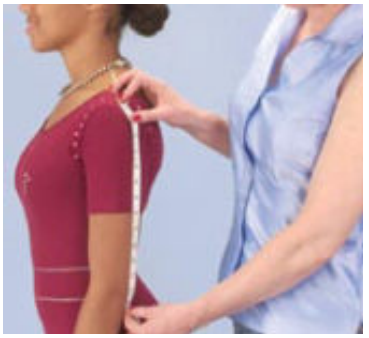
Front shoulder slope: Measure from the shoulder point to the waistline center front in a straight diagonal line, through the bust point.



Back shoulder slope: Measure from the shoulder point to the waistline center back.

Neck to waist: (not pictured) Measure from the base of the neck to the waistline at the center front and center back.

Arms

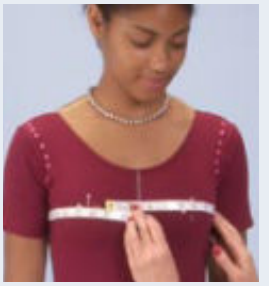


Arm length (sometimes called over arm): Keep the arm relaxed with a slight natural bend at the elbow. Take this measurement in two steps, from the shoulder point to the elbow, and then from the elbow to just below the wrist bone.

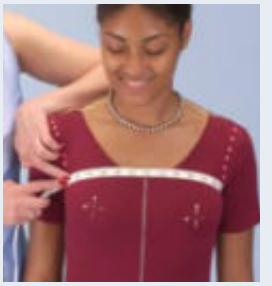
Biceps/upper arm: Measure around the biceps with the arm slightly bent and the biceps relaxed.

Armhole depth: Slide a ruler horizontally, high up under the arm; with the tape, measure from the shoulder point to the ruler.

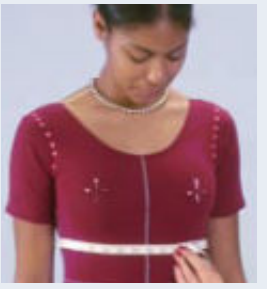
Bust



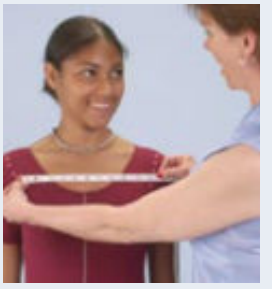
Bust circumference: Measure the fullest part of the bust with the tape parallel to the floor.



Upper bust: Measure the circumference above the bust, with the tape up against the armpit.

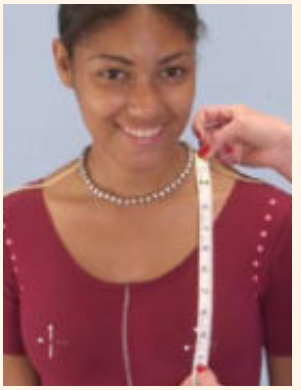


Under bust: Measure the circumference under the bust, holding the tape in line with the bottom edge of the bra.



Chest width: Measure above the bust from armhole to armhole, holding the tape parallel to the floor.

Natural neckline: Holding the tape so it stands on edge, measure around the base of the neckline as defined by the necklace.



Neck edge to bust point (also called bust depth): Measure from the side-neck point to the bust point.

Neck edge to waist: Measure from the side-neck point to the waistline in a straight line, through the bust point.

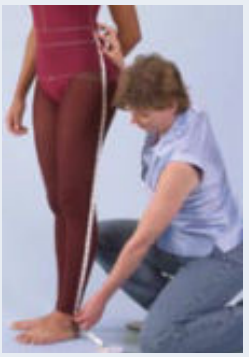
Photo at top of p. 28: Scott Phillips; all other photos: Joseph Kugielsky

It is very common for there to be significant asymmetries in a body. For this reason it is important to measure both sides of the body; if you find discrepancies greater than ½ inch, adjust or draft the pattern with distinct right and left side pattern pieces.

Measuring–the first step to a good fit

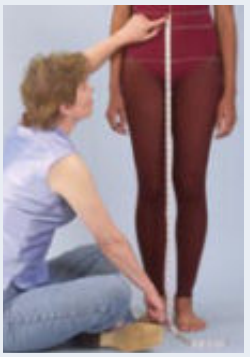
Taking accurate measurements isn't going to solve all your fitting problems. Fitting is of course a two-step process. The first step involves a flat pattern that is produced or adjusted according to individual body measurements, and in the

Legs



Outer seam: Measure from the side waist to the preferred pants hem.

Inseam: Measure from the lowest part of the crotch to the preferred pants hem. Tape the measuring tape to a 12-inch ruler to comfortably take this measurement. Don't spread legs any wider than necessary.



Waist to floor/front and back: Measure the perpendicular distance from the waistline to the floor at the center front and center back.

end a pattern can only be as good as the measurements on which it is based. Once the pattern is cut in fabric expect to do some final fine-tuning, as the characteristics of the fabric will affect ease and other factors that influence the fit of the finished garment. But a set of accurate measurements will get you off to a good start. ♦

Barbara Emodi has recently joined Threads as a contributing editor, from her home in Halifax, Nova Scotia.

ONLINE EXTRA

To record your measurements easily, print out our chart from www.threadsmagazine.com.

Crotch

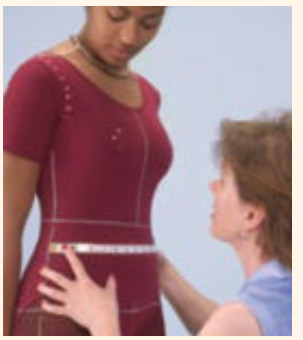
Crotch length/front and back: Measure from the waistline center front to the waistline center back through the crotch, holding the tape comfortably close to the body. Note the distance from the center front to the inseam (crotch front length) and subtract it from the total to derive the crotch back length. (Or mark and then measure a length of twill tape to determine these dimensions.)

Crotch depth: Have the person sit on a flat chair, and use a ruler to measure from the marked waistline to the chair seat. Keep the ruler perpendicular to the seat.

Waist and hips

All circumference measurements taken below the waistline should be accompanied by a depth measurement–the vertical distance between the waist and the specific measurement.

Waist: Measure the circumference of the marked waistline.



Abdomen: Measure from side to side across the fullest part of the abdomen.

Hip circumference: Measure around the fullest part of the hips with the tape parallel to the floor. (When the hip is not the fullest lower body measurement, take another measurement at the fullest part.)

Next article to start on next page

How to Measure a

Before cutting, check your pattern's measurements against your own

by Barbara Emodi
(from issue #112)

You love the fabric, you're excited by the pattern, and you've taken and recorded your measurements carefully. What's the next step to a successful garment? Comparing your measurements with those used to draft the pattern, and reconciling any discrepancies–so that the fit is in your favor.

The fact that most people can't fit into a commercial pattern without making a few adjustments is no surprise, but using your measurements to figure out where to make those adjustments on the pattern tissue can seem a bit mysterious at first. I'll show you which measurements to take on a basic pattern so you'll have a fair comparison with your body size, and start you in the direction of choosing the best among the multisizes on the tissue or altering the pattern to fit.

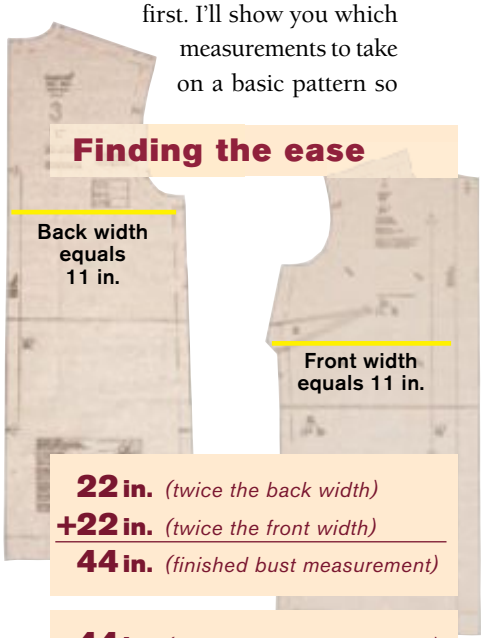
It's all in the numbers: measure and compare

To take an accurate set of measurements of yourself, refer to *Threads,* No. 106, pp. 32-36, and ask a friend to help you with the tape measure. You won't need all of the measurements shown for basic pattern adjustments, but they can be useful for more advanced pattern alterations. You'll find photos of the key measurements with the pattern information given here.

Measuring a pattern is inherently easier than measuring your body. Begin by selecting the relevant pattern pieces: garment front, back, and/or side panels, and sleeve. Once these have been adjusted, use them as the basis for altering connecting pieces such as facings, collars, and waistbands. Because flat pattern measurements are intended to determine the finished size of the garment, you'll need to omit seam and hem allowances from your measurements, as well as any cut-on facings. Simply draw stitching and edge lines around each pattern piece. Don't forget to leave out fullness that's controlled by darts, tucks, or pleats when measuring.

Ease into a good fit

We all know that patterns aren't designed to end up skintight, with



Finding the ease

22 in. *(twice the back width)*
+22 in. *(twice the front width)*
44 in. *(finished bust measurement)*

44 in. *(finished bust measurement)*
–34 in. *(standard bust measurement)*
10 in. *(total ease)*
– 2 in. *(minimum wearing ease)*
8 in. *(design ease)*

If you want to fit in, maintain minimum ease

Wearing ease is that extra space in a garment that lets you take a deep breath, raise your arm above your head, or sit down without splitting any seams. Be sure to maintain the minimum amount of ease recommended at right for well-fitting, comfortable clothing; where a range is provided, consider that larger figures require more ease than slight ones. If you have your own ease preferences, follow them instead.

To calculate the intended ease of a pattern through the chest, bust, waist, and hips, subtract the pattern company's standard measurements (usually found on the pattern envelope) from the finished dimensions of the garment (these will be printed either on the envelope or on the pattern piece itself; if they're not provided, measure the pattern pieces from seamline to seamline). The difference is the total ease, or wearing ease plus design ease. Subtract the minimum wearing ease given here, and you're left with design ease.

Wearing ease recommendations:

Bust: 2 to 4 inches; 3 to 5 inches for coats and jackets
Chest width: ½ to ¾ inch
Back width: ¾ to 1 inch; 1 to 2 inches for jackets and coats
Biceps: 1½ to 2½ inches; 3 to 4½ inches for jackets; 4 to 6 inches for coats
Waist: 1 inch
Hips: 2 to 4 inches
Crotch length: 1 to 2 inches
Crotch depth: ½ to 1 inch

Model photos: Joseph Kugielsky; all other photos: Sloan Howard

Pattern TO ASSESS ITS FIT

exactly our measurements–there's always some extra space built in, both for comfort and movement (wearing ease), and for style (design ease). To learn more about the difference, see "Basics," *Threads*, No. 104, pp. 20-22. For details on determining the ease on a pattern, see "If you want to fit in, maintain minimum ease" on p. 32. When you're adjusting a pattern for fit, it's essential to take into account wearing ease, which will vary from figure to figure and from one part of the body to another. Wearing ease is built into all dimensions of a garment, but is most important in circumferential (as opposed to lengthwise) measurements, so be careful not to remove it when making adjustments. You can preserve

Measure the bodice and adjust accordingly

Both vertical and circumferential measurements are important in fitting the bodice; match vertical pattern dimensions with those taken from the body, plus minimal ease of ¼ inch. Follow ease recommendations on p. 32 ("If you want to fit in, maintain minimum ease") for round-the-body measurements; remember to measure back and front, when needed, and to double the flat half-pattern dimensions for full circumference measurements.

Notes

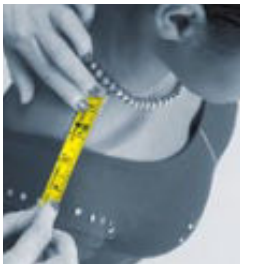
Shoulder length and bust depth: Should equal body measurement, plus ¼ inch ease.

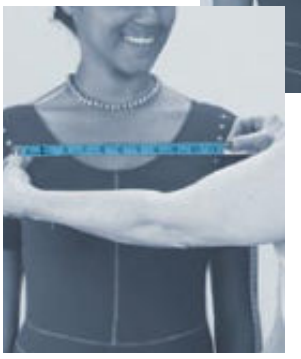
Back width and chest width: Adjust armhole seamlines in or out to improve fit.

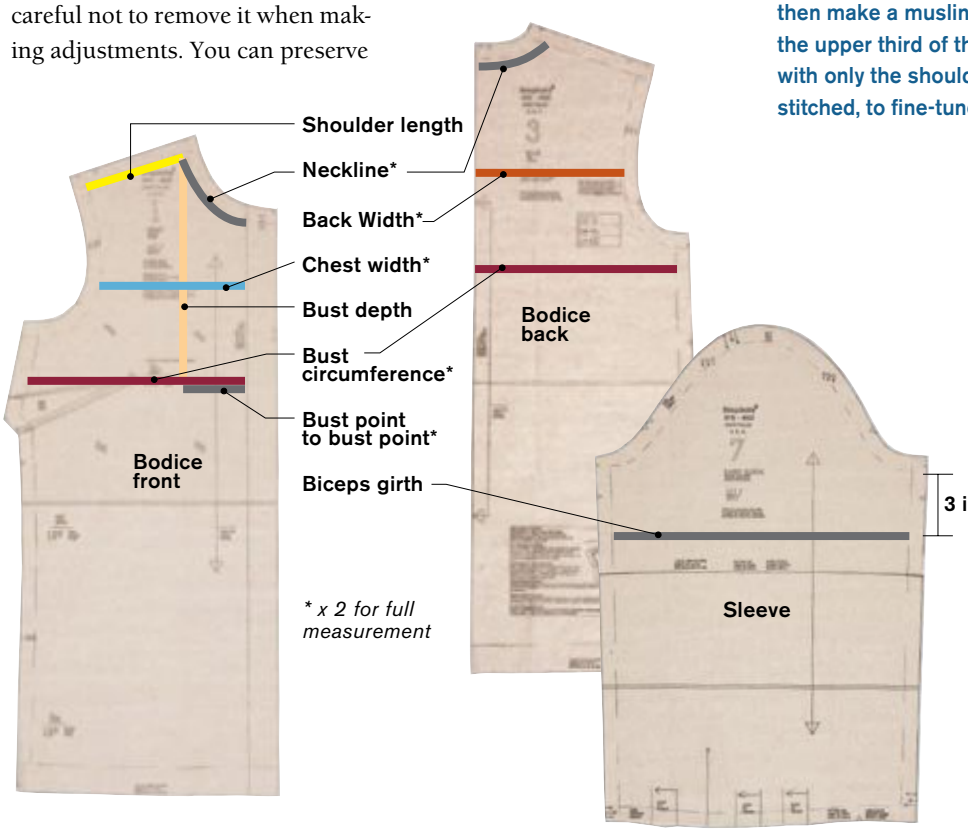
Bust point to bust point: Use to position dart ends; darts should end no closer than 1 inch from the bust point.

Biceps girth: Adjust at underarm seams of sleeve, tapering to original seam by mid-forearm. Adjust bodice side seams to accommodate sleeve changes.

Neckline: Neckline shapes and sizes vary with pattern styles; check first that the neckline is at least as large as the neck measurement, then make a muslin dickey of the upper third of the bodice, with only the shoulder seams stitched, to fine-tune the fit.

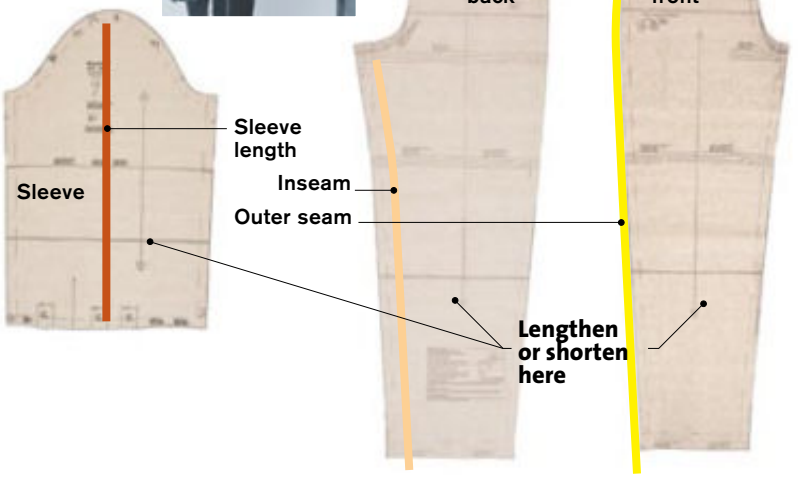






Limb length comparisons are straightforward

A direct comparison between your length measurements and those of the pattern, plus ¼ to ½ inch of ease, provides a good starting point for fitting basic garments. Fullness of sleeves, the presence of cuffs, the taper of pants legs, and the height of the shoes you intend to wear with the pants will all affect how much extra ease to add.



design ease as is to maintain the intended look of the garment, or adjust it to reflect your own sense of visual proportion.

The long and the short of it

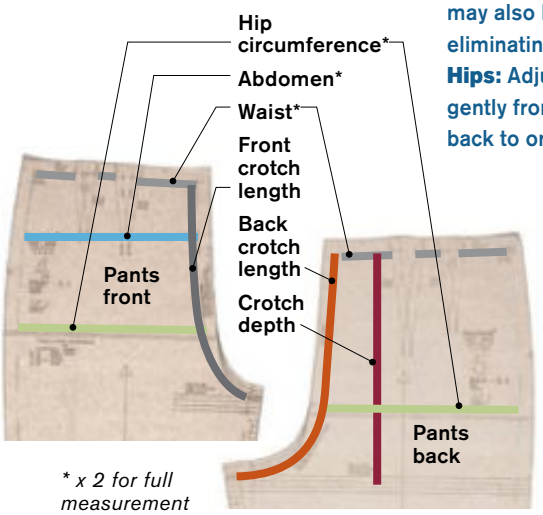
It's a cinch to assess a pattern for length: When working with vertical dimensions such as sleeve length, bust depth, and inseam and outseam lengths for pants, simply factor in ¼ to ½ inch ease beyond your body measurement.

Comparing measurements isn't intended to produce a perfect fit on its own; rather, it's meant to help you choose the right size and make preliminary adjustments so that a pattern has the right amount of room for you, in all directions. Tissue-fitting, making a muslin, or fitting during sewing will all further refine the garment. So grab your tape measure and ruler, and measure your way to a great fit. ♦

Barbara Emodi measures twice, then cuts once, in Halifax, NS, Canada.

Measurements help match pants curves to yours

Circumference dimensions at the pattern's waist and hips, as well as the crotch length and depth, must be reconciled with your own measurements. Use recommended ease amounts to build comfort and good fit into the pants.



** x 2 for full measurement*

Notes

Waist and abdomen: Measure abdomen across front at depth of greatest fullness (e.g., at waist, or below). Add or subtract at side seams, equally in front or back, or more in front if a full abdomen warrants. Adjustments may also be made by deepening or eliminating darts.

Hips: Adjust at side seams, by curving gently from waist to hip; taper gradually back to original width at hem.

Crotch length: Adjust either at crotch points (front and/or back), or by raising or lowering the waistline at center front or center back. Adjust this before crotch depth; solving fit problems here often also takes care of crotch-depth issues.

Crotch depth: Compare your measurement literally with that of the pattern, and make adjustments as needed at marked crotch-depth line (usually from crotch point to side seam, perpendicular to the grainline).

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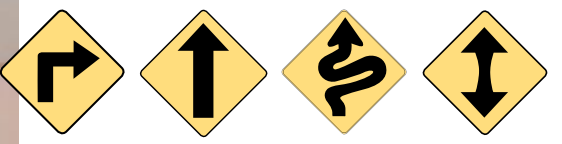
Drivers' Ed for Sewing Machines

How you maneuver curves and turn corners influences your finished garment

BY JUDITH NEUKAM
(from issue #120)



There's nothing wrong with being a Sunday-morning-to-brunch kind of driver when you're behind the wheel of an automobile—but a technique tune-up can work wonders for sewing when you're driving fabric over feed dogs. Many sewing problems can be resolved by taking a few driving lessons. These lessons won't just make sewing easier—they'll improve your results.

I'm going to tell you how to drive straight, navigate turns, take corners, jump bumps, and sew seams and edges that will look the way they were intended to. Your success depends on how you use your hands to control the fabric as you sew.

Naturally, you need to develop a feel for your sewing equipment. When you've sewn on a machine for a time, you acquire an intimacy with the way it accelerates and how it sounds—you become familiar with its vibration, pings, and knocks, and

Straight sewing requires guides, pivots, and loops

The long seams found on pants legs, and the vertical seams on skirts and dresses should be straight and pucker-free, with seam allowances having a consistent width. Subtle changes in the width of multiple seam allowances around a garment can significantly change the garment's size.

To help you stay on the road for even and accurate seam allowances, most machines have parallel seam guides embossed on the throat plate (photo above). Simply pivot the fabric left to right or right to left with your hand (photos at right and top right) to keep the fabric edge aligned with the seam guide while the machine stitches.

When you're sewing through two or more layers of fabric, the bottom layer moves slightly faster than the top one, resulting in a misaligned seam. This is because the feed dogs grip and pull the lower fabric under the presser foot, but the presser foot creates a slight resistance on the top fabric. To keep both layers moving through the sewing machine at the same pace, drape a loop of fabric over your hand as shown at bottom right.

you can hear the difference when it's not running smoothly. Smooth sewing depends on starting with a machine outfitted with the correct needle and thread for the fabric you're using.

Follow my recommendations for driving your sewing machine and you'll achieve extra-fine results in your sewing.

Judith Neukam is an associate editor for Threads.

Photos: Sloan Howard

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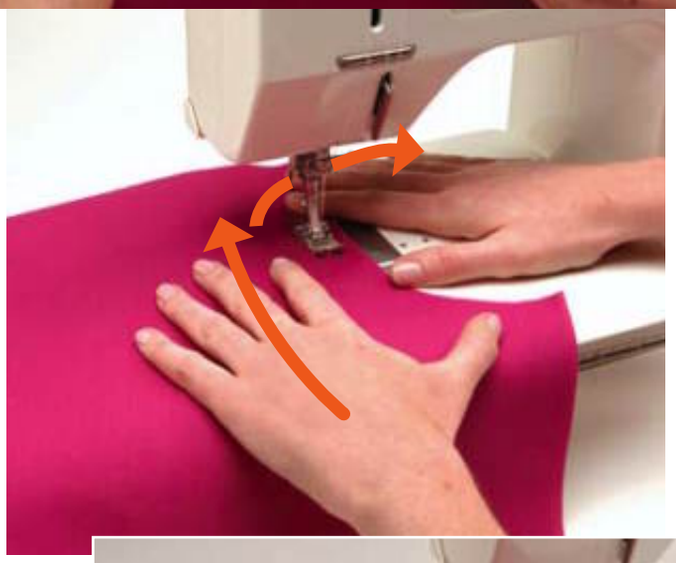
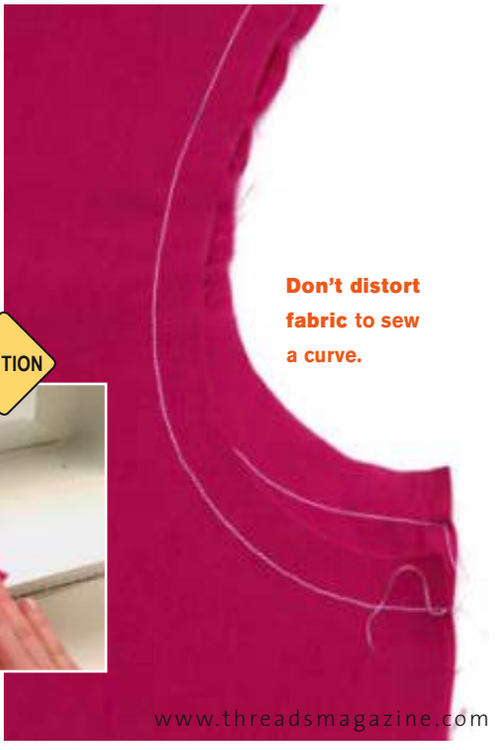


Take it easy on curves with wrinkle-free maneuvers

Improperly sewn curves can cause necklines that flare away from the body, and armholes that gape, are too tight, or have rough-looking, puckered, or angular edges.

The technique for driving around both inside and outside curves is to sew them as if the fabric is a stiff, inflexible paper. You can't stretch or bend it as you sew, requiring you to use your whole hand to control the direction of the fabric. One hand controls the fabric to maintain an accurate seam allowance, while the other hand gently directs the fabric through the arc of the curve. The upper left photo shows how you drive the fabric through a concave curve in the direction of the arrows. In the middle photo, the right hand fingers steer the fabric around the curve and to the right from behind the needle. The bottom left photo shows how to use your hands to drive the fabric through a convex curve. In all cases, when you're driving curves, use your hands and fingers to direct and follow the original shape.

Problems occur if you distort the fabric as it goes through the needle in a way that changes the original shape of the curve. The tendency to straighten a concave curve as it is being stitched causes the curve to shorten, which can make a neckline or armhole too tight. In the bottom right photo, I've placed a curve that was straightened during sewing under a curve that was sewn properly, notice how the same curve shortened as a result.

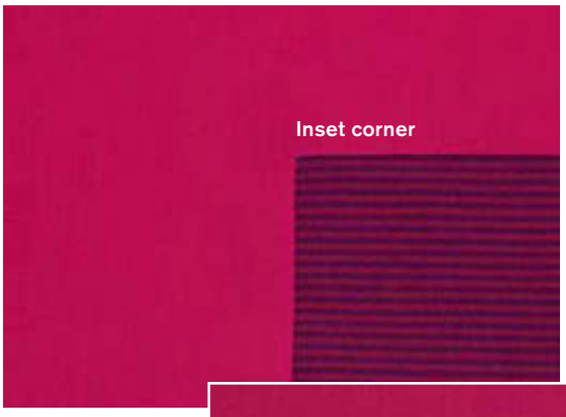


Don't distort fabric to sew a curve.

For sharp corners—drive to a point and pivot

There are all sorts of corners: 90 degrees, 45 degrees or less, inside, outside, and inset—you see them on front openings, lapels, and pockets of blouses, jackets, and coats.

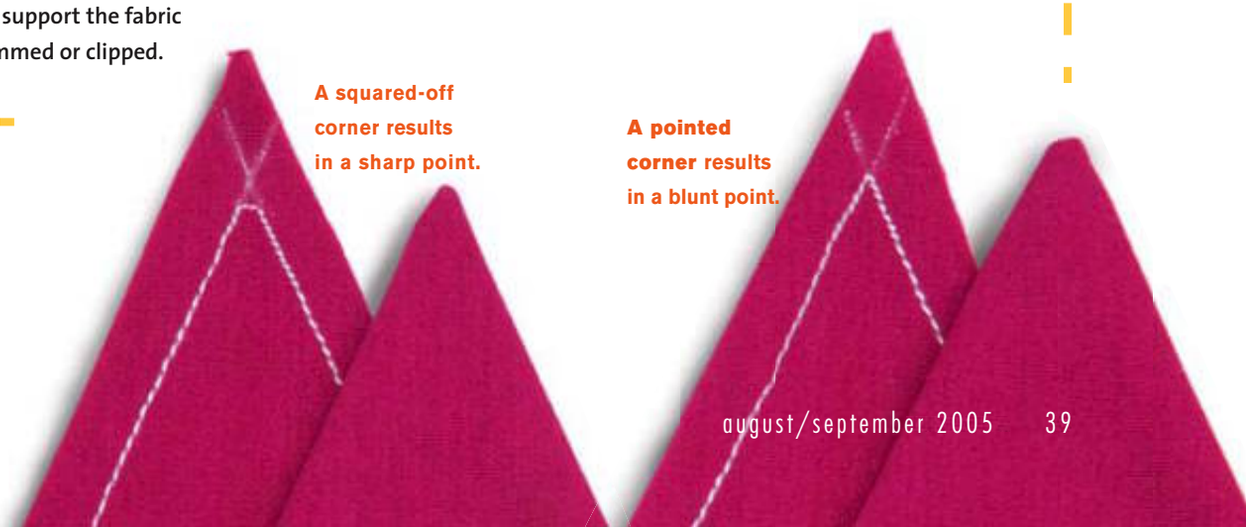
Sewing a corner is often a matter of sewing along a line to a marked point, positioning the needle down into the fabric, lifting the presser foot, pivoting the fabric to the desired angle, lowering the presser foot, and recommencing to sew. This method works best for inside corners or inset corners like the ones shown at right.



For a well-sewn outside corner, such as a collar point, add an extra step. Stop sewing the seamline a stitch or two before you reach the end point. With the needle down, pivot across the point as shown at right, take two or three stitches, and pivot again to follow the opposite seam.

Compare the points shown in the photos below when the fabric is turned right-side out. The squared off corner on the left has a much sharper finished point than the example on the right, which was sewn by pivoting at the point.

All corners benefit from a shorter stitch length (1/4 inch before and after the point). These smaller stitches support the fabric when the corner is trimmed or clipped.



A squared-off corner results in a sharp point.

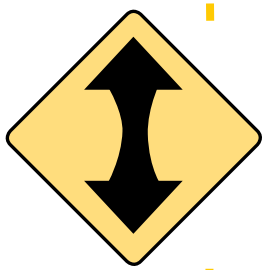
A pointed corner results in a blunt point.

(continued on the following page)

Two ways to jump bumps

When seams intersect with a waistband or hem, or you otherwise come to a point with a many-layered bump to sew over, it's easy to get high-centered. When this happens, your machine usually jams at the top of the bump because the presser foot isn't level with the feed dogs (see photo at near right). Most often, this results in a snarled mess of threads to cut out of your machine and your garment.

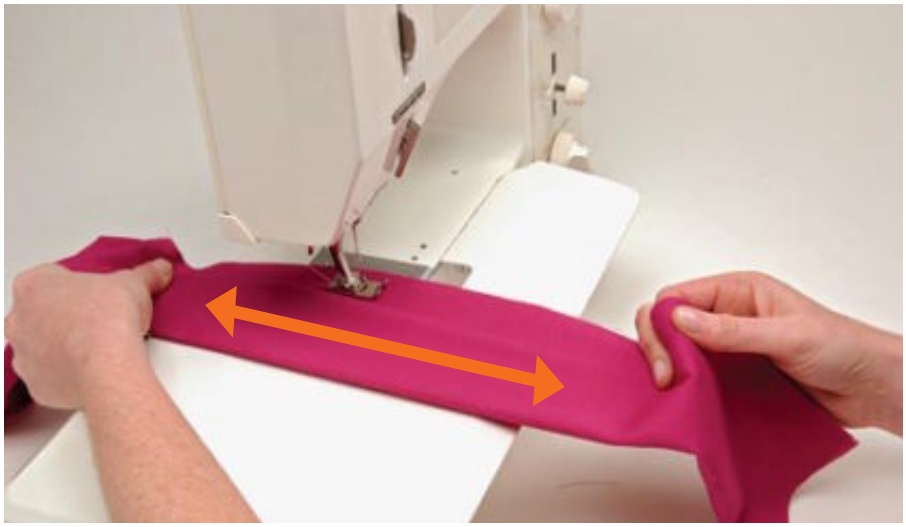
By always keeping the sole of your presser foot parallel with the feed dogs, you can drive right over these bumps without skipping a stitch. To keep your presser foot level, use a shim designed for this purpose, such as a Jean-a-ma-jig or Seam Buster (below the middle photo). However, you can just as easily use a folded scrap of fabric to raise the low end of the foot, as shown in the top and far right photos on the facing page. Slide the folded scrap under the heel of the presser foot and stitch until the toe of the foot drops—then position the scrap under the toe and drag it along as you continue sewing until the heel drops.

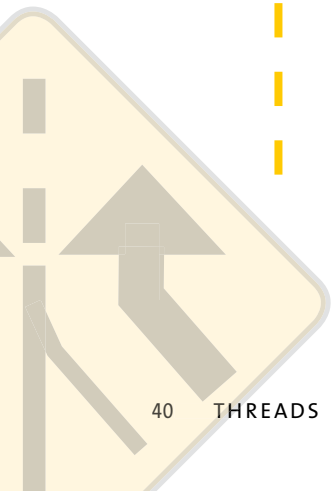


Taut sewing pulls in two directions

Taut sewing involves pulling the fabric forward and backward simultaneously as you sew. This practice intentionally removes the slack from the fabric to produce an ultra-smooth seam or uniform topstitching on woven fabrics, or to create a lettuce finish on knit or bias edges.

However, if you pull the fabric too hard, you will overpower the feed dogs, which often causes the needle to break because the pressure on the fabric bends the needle, which then hits the throat plate and snaps. The goal is to pull the fabric in opposite directions enough to tighten it but not so much that you lose a neutral tension—meaning a balance of pressure in both directions. By maintaining an equal amount of pressure on the fabric as it passes under the needle, the feed dogs control the movement of the fabric as they should. If you are in the habit of taut sewing all the time, break it, or you'll continue to break needles.





You can purchase shims where notions are sold.

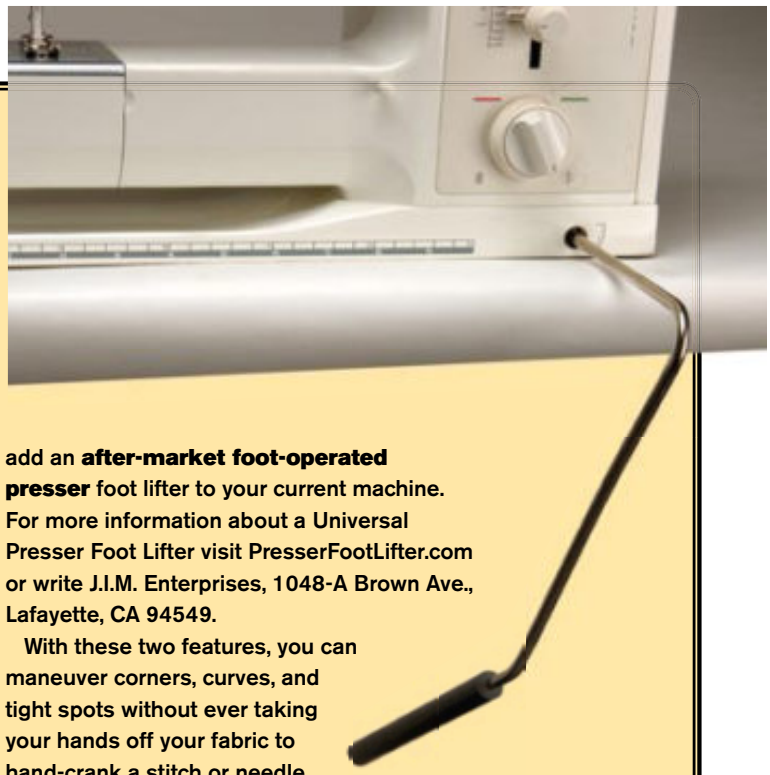
A presser-foot lift simplifies the journey

Machines come with wonderful features to make driving easier. One is the foot control that takes a half stitch when you heel-tap the control, enabling you to either raise or lower your needle position. Some machines offer a needle up/down button that performs the same function but requires a finger to operate.

A hands-free method of lifting the presser foot is another such feature. On some machines, the presser foot lifts automatically when you stop sewing—just enough to pivot your fabric—but not so much that you lose control of it. Other machines offer **a knee-operated presser foot lifter** (above photo at right), which enables you to lift and lower the foot without using your hands.

If your machine doesn't already have this feature, you can add an **after-market foot-operated presser** foot lifter to your current machine. For more information about a Universal Presser Foot Lifter visit PresserFootLifter.com or write J.I.M. Enterprises, 1048-A Brown Ave., Lafayette, CA 94549.

With these two features, you can maneuver corners, curves, and tight spots without ever taking your hands off your fabric to hand-crank a stitch or needle position. They allow you to just leave the driving to invisible hands.



Although the waistband is the last piece you sew, it should be the first area you fit

To Fit Pants, Start at

the Waist

Fitting pants from the waist down ensures a flawless fit on any body type. Horizontal reference lines in the "before" muslin indicate areas where fitting will take place. The finished, "after" pants fall smoothly from the waistband and all the way to the hem, with nary a wrinkle or pucker.

BY JOYCE MURPHY (FROM ISSUE #119)

Over the years, I've fitted pants on thousands of bodies, and although I can easily and happily fit pants now, I found this task frustrating and time-consuming when I first started my custom tailoring shop. Back then, I followed the traditional fitting method: I pin-fitted a muslin version minus the waistband, then attached the band once the fit was perfected. Unfortunately, adding the waistband usually sabotaged all of my hard work, and I would have to go back and refit the muslin all over again.

One day, when I was struggling with a waistband, I experienced an "a-ha!" moment: Everything hangs from the band, so it should be the first thing I fit, not the last. Once I figured that out, I was able to streamline the process. Now, I do the fitting in fully sewn pants. I call these "test pants" because I construct them in muslin or other inexpensive fabric—including the all-important waistband—and measure the pants only after any fitting changes have been made.

Choose a pattern that fits your hip measurement

The best pattern to use for your test pants is a basic pants pattern that features one dart on the front, one or two darts on the back, and a straight, non-contoured waistband. I prefer to start with a slightly tapered leg, as it's easier to evaluate how it fits than a fuller leg. If you desire a straight, boot-cut, or full leg, it's easy to make those style adjustments to the pattern after it is fit.

Because the hip area is the most challenging area to fit, choose your pattern size based on that measurement, even if your waist and abdomen are larger than your hip. I know this seems counterintuitive, but it really does work, as you'll see in the step-by-step fitting process on the following pages.

Sew the test pants true to the pattern before fitting

Next, sew up your test pants. I prefer to create mine from a medium-colored cotton-blend muslin or other inexpensive fabric. I've found that clients and students are better able to visualize the final fit in darker test pants. They also feel more comfortable and covered in a darker fabric, and when they stand and move comfortably during the session, the better the fit will be.

Fuller figure? No problem. Start at the waist and systemically address each area of the body down to the hem.

Before/After

Before/After

After you cut out the fabric pieces, add reference lines as outlined on p. 36, then press creases down the center of the front and back pieces. The reference lines and creases will act as fitting guides—the hip and thigh reference lines always need to stay parallel to the floor, and the crease lines need to be perpendicular to the floor.

Sew the pants according to the pattern instructions, with one exception: Press the crotch seam open, then trim the seam allowances down slightly in the curve. This ensures that the crotch lays flat against the body. It's also important to completely finish your test pants: Stabilize and attach the waistband, insert a fly-front zipper (but not a fly guard as this adds bulk and hinders pinning), and add a hook-and-eye closure. Sew the pants true to the pattern, including the hem.

To fit the pants, start at the top and work down

Pants are virtually impossible to fit on yourself, so pair up with a buddy. As I mentioned, the fitting sequence is key. The first step is to size and position the waistband, as demonstrated on p. 45. When you are satisfied with the fit and feel of that all-important piece, then simply fit your way down (see pp. 44–45). Because pants hang from the waist, once you perfect the fit in one area—the abdomen, for instance—you can move down and concentrate on the next area—the hip—without worrying that the changes you're making will adversely affect the previous area, a common frustration in the traditional fitting method.

Once you've completed all the fitting steps, move back and evaluate the adjusted fit from all angles. When satisfied, adjust your pattern accordingly. All that's left to do is sew up the pants in your fashion fabric. And be sure to store your test pants in a safe place; if you ever lose or gain weight, it will be ready to fit again.

Joyce Murphy (JSMPatterns.com) creates custom pants in Alpena, Mich., and teaches pants-fitting workshops across the country. She is a member of PACC.

Waist
Abdomen (3 inches below waist)
Hip (8 inches below waist)
Thigh (3 inches below crotch point)
Knee (midpoint between crotch point and hem)

Use reference lines to help you fit

There are five key fitting areas for pants: the waist, abdomen, hip, thigh, and knee. If you've ever fit an unmarked muslin on a body, you know that it's difficult to judge these exact locations. Marking them directly on your test pants eliminates the guessing game and helps you get a more precise fit.

Mark the lines with chalk or a fabric marker, or, as I prefer, machine-sew the lines using a contrasting thread and a basting stitch. You can then feel the stitch lines under your fingers, as well as see them, as you fit.

Make sure the lines are perpendicular to the lengthwise grain of each pattern piece. Then, at any point you can visually confirm that the pants are hanging correctly on the body—the hip and thigh lines simply need to be parallel to the floor.

Size and position the waistband

When you try on your test pants, take a long, hard look at the waistband. The aim is a band that is snug, yet comfortable. Where it sits on the body is a personal preference—decide if you'd like it to hit above, at, or just below the belly button.

TIP

Use long, sturdy T pins in the waistband. *Thinner, shorter pins will bend or slide out of place.*

Angle the band for ease of sitting and walking. A good-fitting waistband usually isn't parallel to the floor—it actually dips ¼ to ½ inch lower in the front.

Pinch out a too-big band. Because you can't pin out the desired amount along the center front due to the zipper, simply pin out an even amount on either side of it. Continue pinning the fabric down past the abdomen line.

Insert a strip of stabilizer in a too-small band. Unzip the zipper to the point where there is no longer any fabric tension, then insert a piece of waistband stabilizer, and pin it in place.

Check the hip position. Many women have one hip lower than the other, which can affect the fit and drape of pants. Rest your hands on both hips to gauge if they are level. Also measure from the bottom of the waistband to the floor along both side seams, then compare the measurements. If there is more than ¼ inch difference, make a note to shave that amount off that side of the pants when you adjust your pattern later.

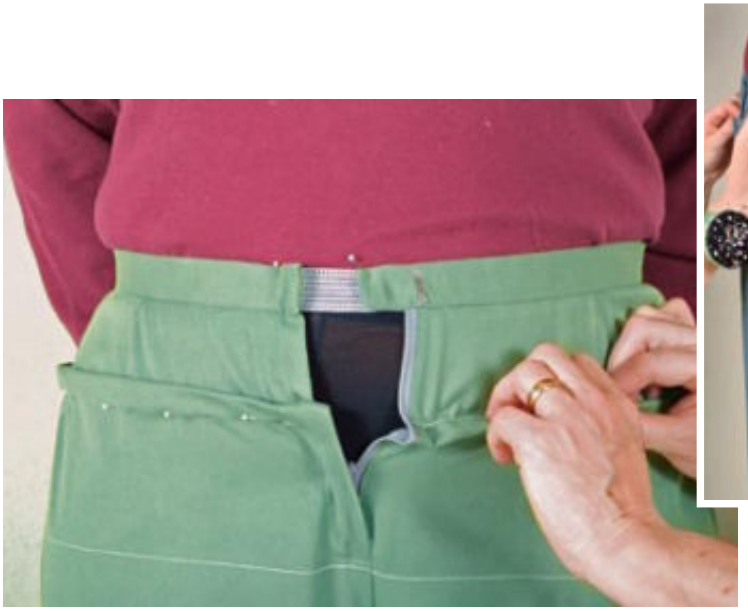
(continued on the following page)

Step-by-step photos and left photos on p. 44: Jennifer Sauer; all other photos: Scott Phillips

Adjust the fit in the body core

The abdomen, hip, and crotch areas are challenging to fit, as the fabric needs to fit around the body, as well as between the legs. Just start from the top and methodically fit your way down the body.

Pin out the excess between the abdomen and hip lines. If there is excess fabric in the front- or back-crotch area, adjust the crotch length by taking a horizontal tuck between the abdomen and hip reference lines. Most women need this adjustment. Start at center front, tuck the fabric over the side seams, and continue to the back as necessary. Use the abdomen line as the top of the tuck, and make sure the hipline stays parallel to the floor.

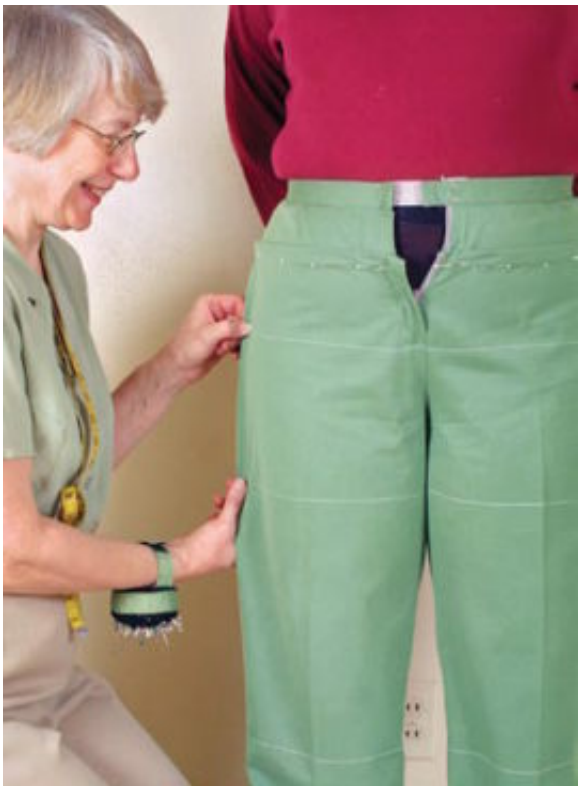


Trust me—it works. If the fabric is snug and pulls across the seat, make more room for the body core by pinching out fabric along the center-back seam.

Do the sit test. To test comfort and ease of movement, sit and walk in the pants. If, when you sit, the waistband pulls down or gapes, the crotch length is a tad too short. To fix, pinch out more fabric in the center-back seam. Although it seems counterintuitive, removing fabric at this seam creates more space for the body.

Check the ease and adjust the hem

To move and sit comfortably in the pants, and for a flattering silhouette, check to make sure there is just enough room, or wearing ease, in the abdomen, hip, thigh, and hem. The fabric should skim your body's curves, never hug them.



Make sure there is enough ease. You should be able to pinch out ½ inch on both side seams at the abdomen, hip, and thigh lines.

Adjust the hem length. ***To shorten the pants,*** fold them out 4 to 5 inches above the hem. This doesn't compromise the shape and allows you to better visualize the hem. ***To lengthen the hem,*** measure down from the hem and record the additional amount.

Good-fitting pants are very comfortable, as well as attractive. *They don't pull, twist, or gape as you walk, sit, or bend.*

Aha! Pattern Principles

Shedding light on the formulas of patternmaking and modification

BY SUSAN LAZEAR
(from issue #121)

After years of studying how to make pattern pieces and observing how successfully they go together, I've noticed certain universal principles about them. There are several key points in the anatomy of a pattern. And because they are universal to all garments, they exist on almost every pattern you use.

Use my principles as a guide or checklist to proofread your patterns, and you'll eliminate many initial pattern glitches. As you apply these principles, your mastery of pattern alterations will develop and you'll enjoy sewing better-fitting garments.

Whether drafting or altering, you'll find these principles extremely helpful the next time you're working with a pattern. People enjoy wearing more fitted garments these days. Hopefully, my guidelines will help you achieve the look.

Susan Lazear is a professor at San Diego Mesa College—and owns and developed Cochenille Design Studio, a pattern drafting software company. Learn more at cochenille.com.

KEY POINTS MAKE

1. The upper shoulder point—where a jewel neckline crosses the shoulder seam—is the key pattern reference point on a garment. The garment hangs from this point and it marks where you should begin most length and depth measurements.

2. Lengthwise grainlines usually run parallel with the center front and center back lines, and perpendicular to the hipline and biceps line.

3. At the point where two pattern piece corners join front to back—for example, at a pants waist side seam, the underarm side seam, or each end of a shoulder seam—the combined corner angles equal 180 degrees, usually from the right angles at each corner. This prevents seams from having undesirable bumps at the edge.

4. On contoured body styles when the side seam angles in or out, or the garment is A-line or flared, use a curved hem. This is true for bodices, coats, skirts, and any garment that flares or angles.

5. A standard jewel neckline width is approximately a third of the total shoulder width. The front neckline depth is approximately half of the neck width. The back neckline is generally ¾ inch deep on most sizes.

Drawings: Linda Boston.

MEASUREMENTS COUNT

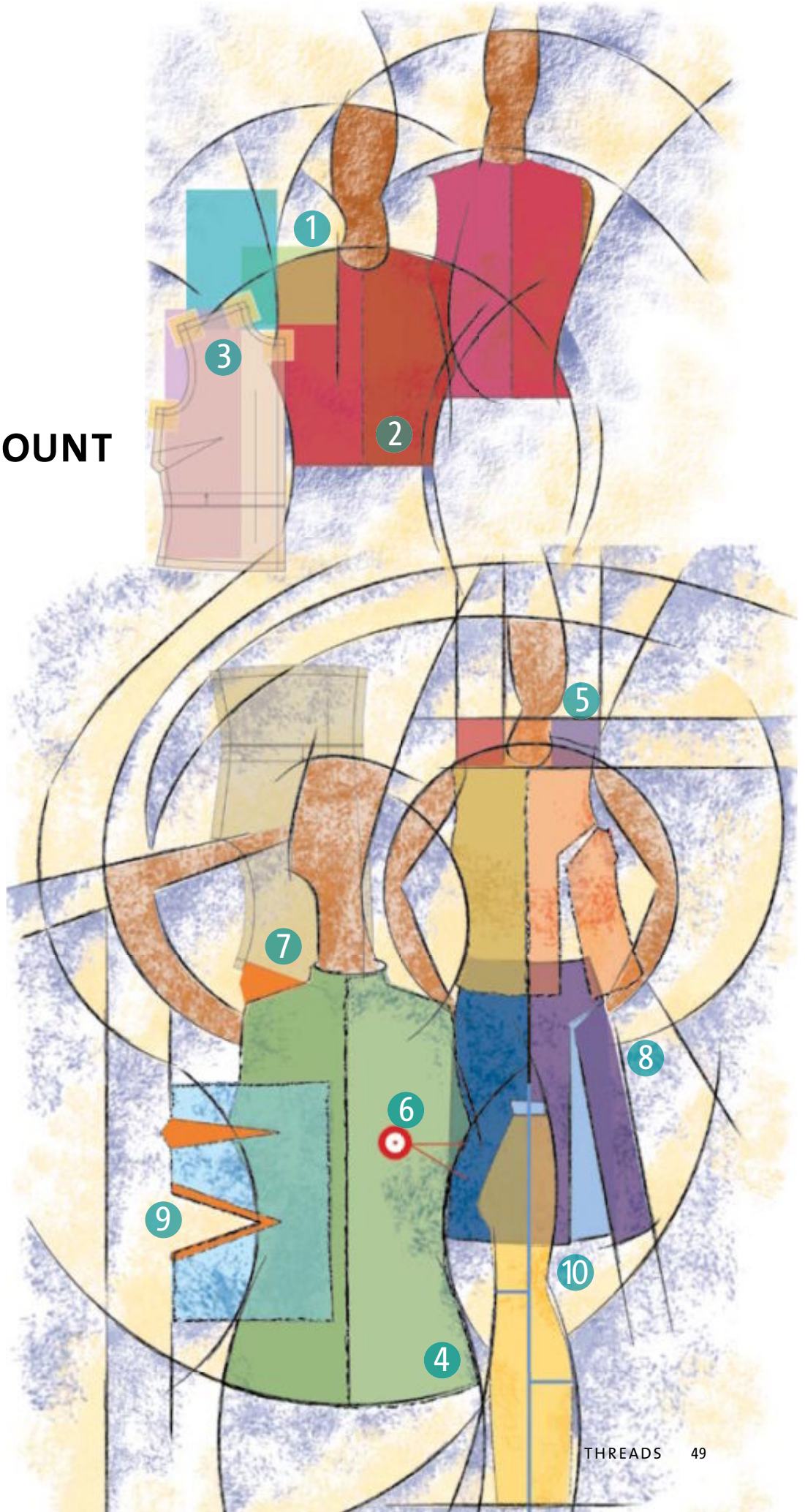
6 Darts must always point toward the apex on the body, i.e., the bust point, but they don't reach it. Keep the dart point ½ to 1¼ inches from the apex so it ends gracefully and doesn't accentuate the bust point.

7 The shoulder slope is essentially a dart, hidden in the seam, allowing the garment to hang on the straight of grain. The slope on your pattern must match your own shoulder slope for a bodice to fit properly.

8 When adding more than 1½ inches of flare to a pattern piece (to each garment quadrant), make the addition internally, not on the side seam. The allowable amount of flare you can successfully add at the side seam increases as the pattern piece becomes longer. Adding excessive flare at the side seams can leave you with a garment that looks like it has fins.

9 Use seam allowances on large darts and fold and sew smaller darts as a wedge. Removing the extra fabric provides a smoother fit.

10 The front waistline is generally longer than the back by approximately an inch. Conversely, the back hipline is longer on the back by the same amount.



ARMHOLES

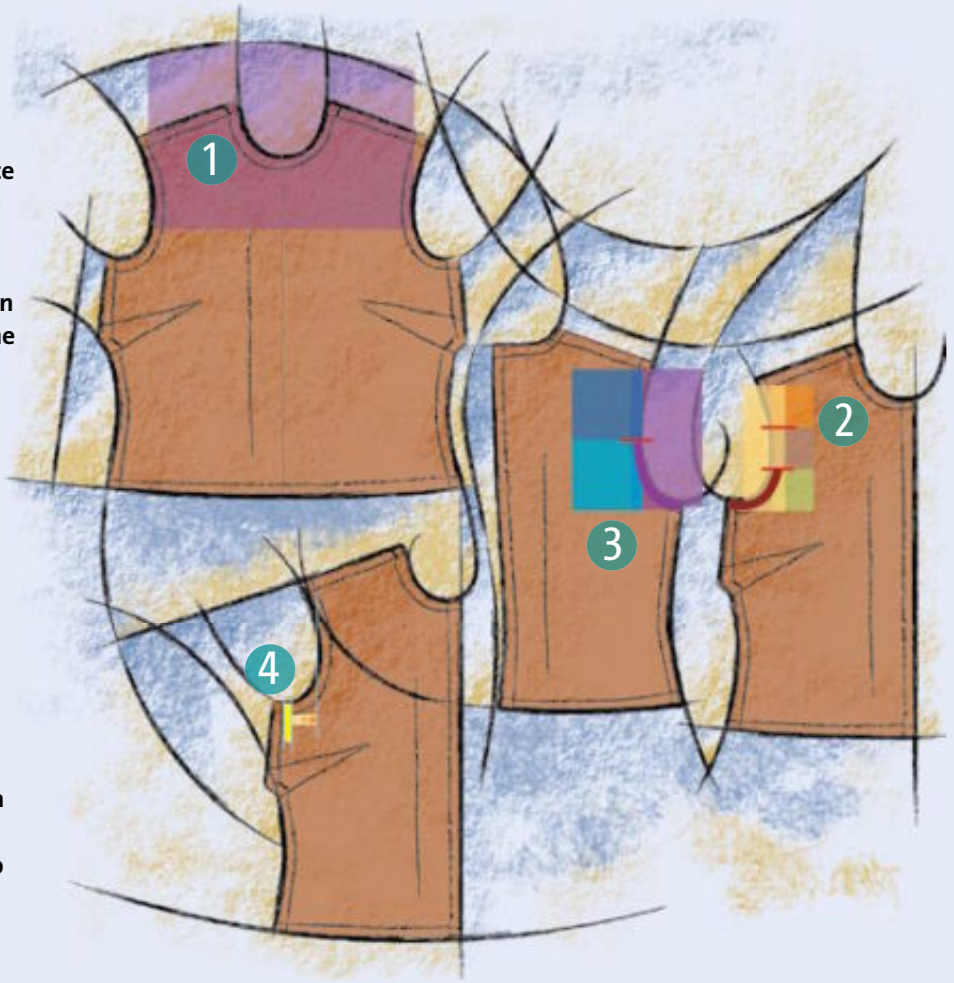
Alter the armhole first and then adjust the sleeve cap. The proper armhole fit makes the whole bodice hang better. And of course, the right armhole is essential for a properly fitted sleeve.

1 The upper chest width is generally narrower than its corresponding shoulder point. On a size 10, the armhole curves in approximately ¼ to ⅜ inch on each side.

2 The front armhole angles toward the center front from the shoulder point down about two-thirds of the armhole depth before starting its curve around to the side seam.

3 The back armhole curves toward the side seam halfway down the armhole depth. You need the greater scoop in the front to accommodate forward arm movement.

4 The lower armhole flattens for approximately a quarter of the armhole inset. As garments become less fitted, the lower armhole points drop and widen.



SLEEVES AND SLEEVE CAPS

When you alter an armhole, it's likely that both the sleeve cap and the biceps length of the sleeve need to change, too.

1 The sleeve cap height on a fitted garment measures approximately ⅓ to ¾ of the length of the armhole depth, which is measured vertically from the shoulder point to the underarm.

2 When you deepen an armhole, you need to increase the biceps circumference and shorten the cap, creating a looser-fitting sleeve.

3 When you increase the width of a garment at the side seam (resulting in a greater armhole inset on the pattern), the cap height of the sleeve needs to increase.

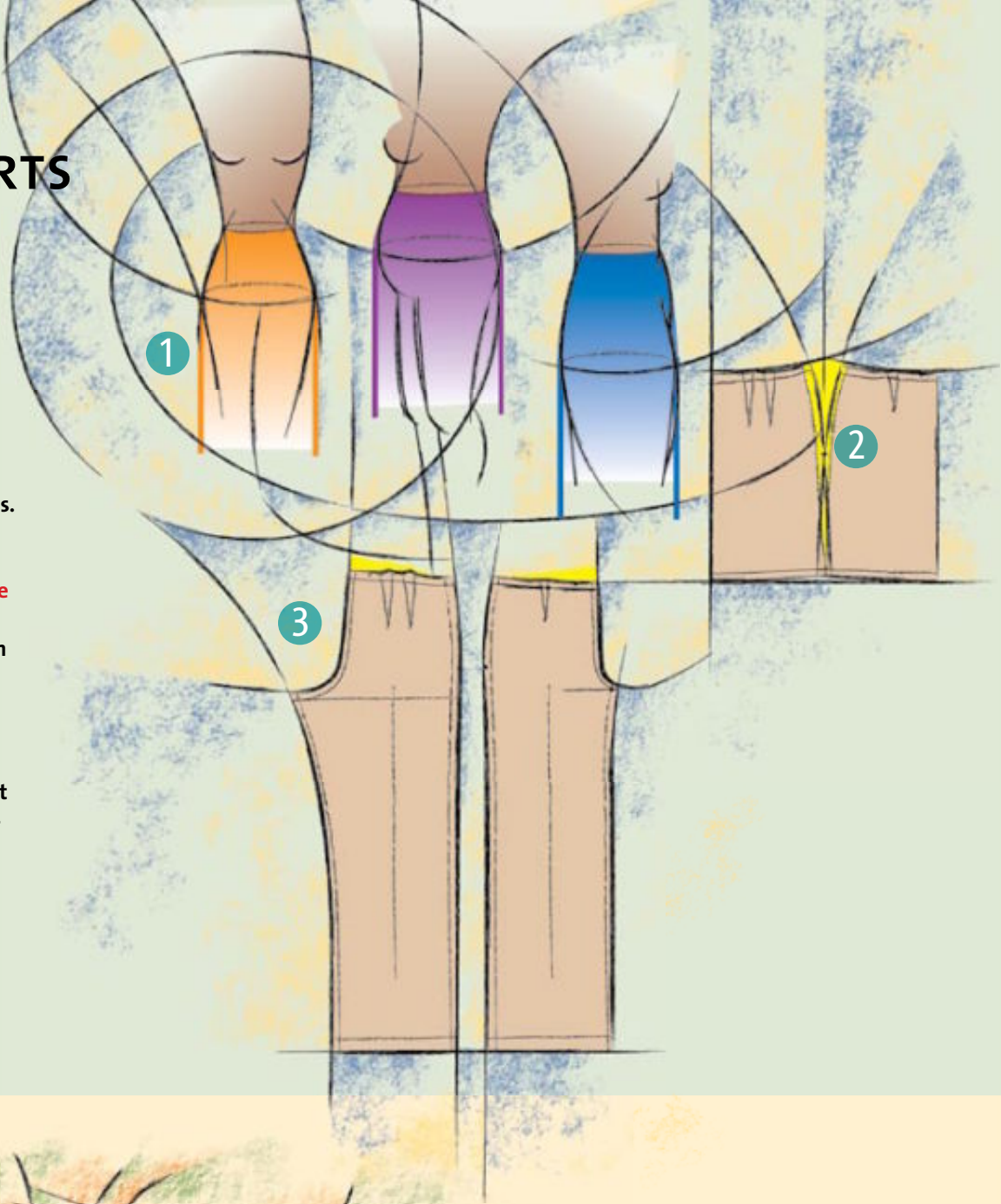
PANTS AND SKIRTS

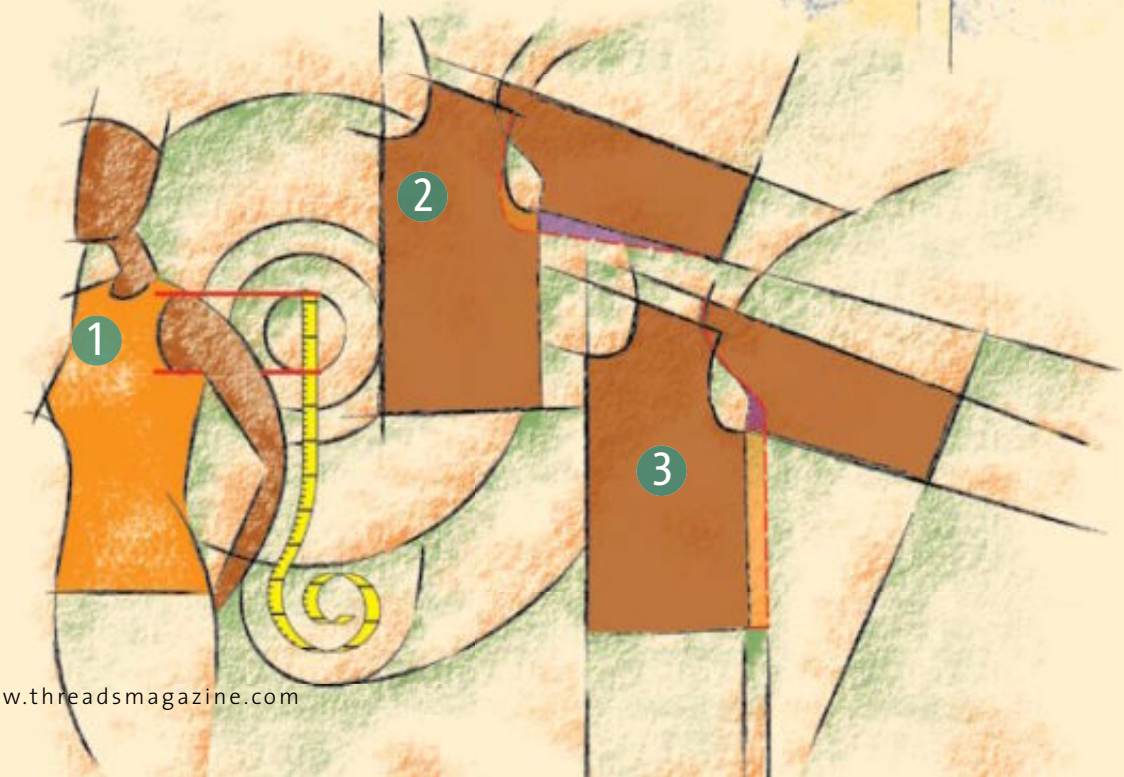
Pants and skirt patterns offer opportunities to hide darts in seams, which can be helpful once you know where they're located.

1 The side seam curve on pants and skirts should curve to the depth of the fullest part of the hip, and then fall straight. The fullest part on some people may be the abdomen or thighs.

2 Commercial pants and skirts generally have, on each side, one dart in the front and two darts in the back. The front hip curve is a sharper curve than the back, and is essentially a hidden dart. Front darts generally drop 3½ inches and back darts drop 5 inches.

3 To allow for longer crotch lengths that accommodate a full abdomen or buttocks, raise the center front or back seam above the normal waistline.





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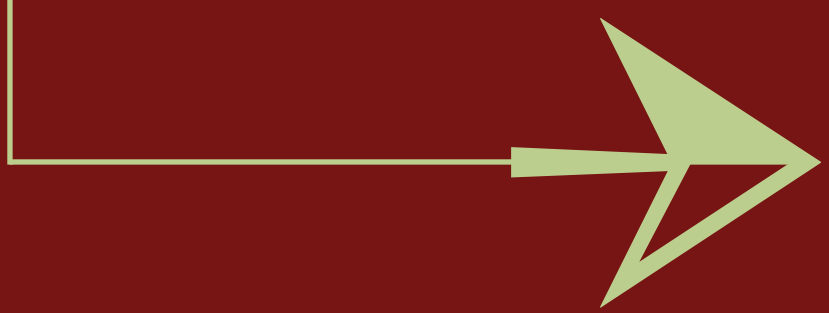
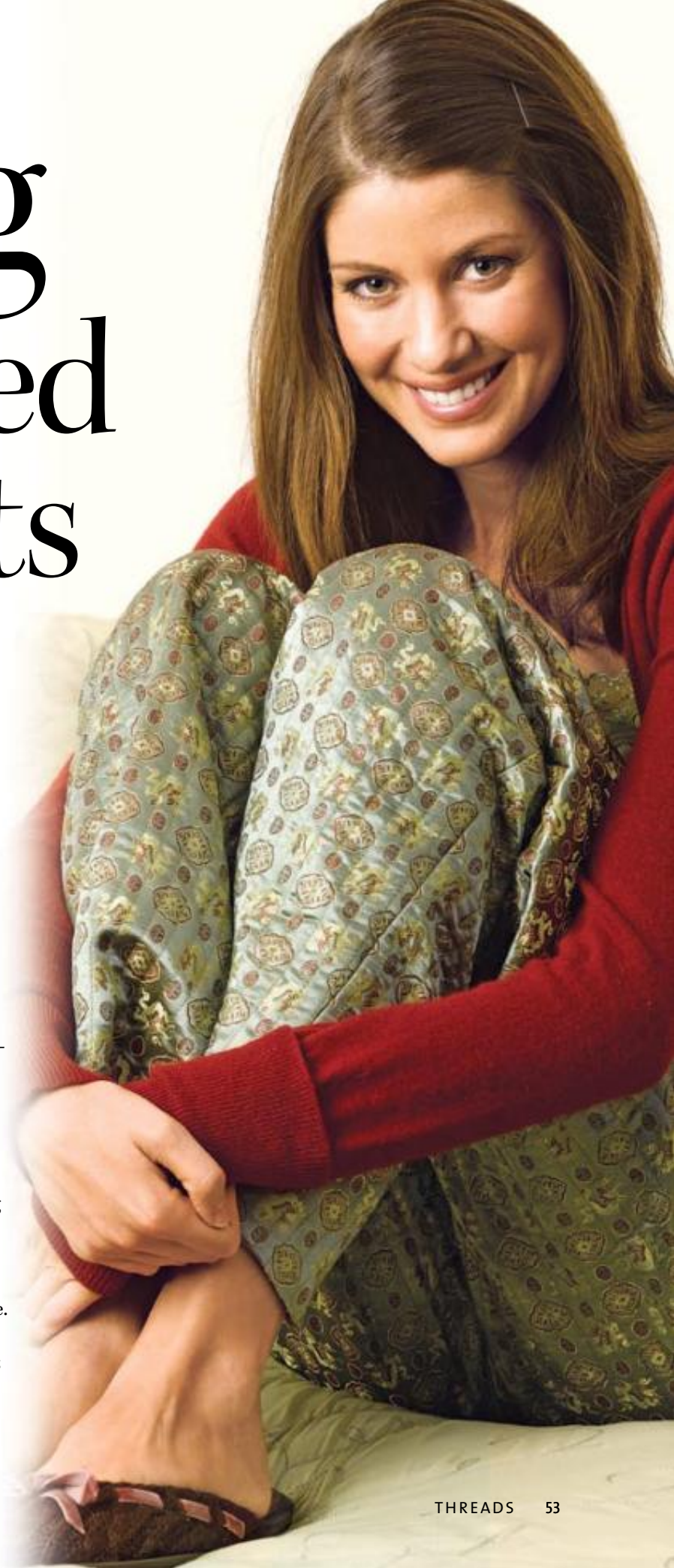


Batting for Quilted Garments



Consider loft, fiber content, and flexibility when selecting filling for warm and comfy quilted clothes

BY MARY RAY (FROM ISSUE #122)

I sew a lot of quilted clothes and love the lightweight comfort and supple, figure-flattering structure of my jackets, coats, and vests. When I first began making quilted clothing, though, there weren't many batting options to choose from. One of the first quilted vests I made many years ago reminds me of that: It was channel-quilted with an extrathick polyester comforter batt, and it practically stood by itself—definitely not the fashion statement I was hoping to make.

Today, there's a much larger range of batting products available, making it possible for sewers to create padded garments of all sorts, even skirts and pants. With a properly chosen batting inside, your quilted clothes can look modern, trim, and chic—not as if they were made from coverlets or pot holders.

Of course, no single batting type suits every project. My first consideration when I'm selecting batting is the style of the garment I plan to make. Do I want a puffy, pillowy jacket; a fitted, tailored piece; or a garment that drapes softly? I've tested lots of battings and have come up with recommendations that will

SOFT & DRAPEY

Batting	Fiber content	Type	Hand	Care	Appearance when quilted	Drifting over a 10-inch square
Hobbs Heirloom Wool *(HobbsBondedFibers.com)*	100% wool	bonded	soft, crushes with no wrinkling	machine-wash	smooth face and backing	none
Hobbs Thermore *(HobbsBondedFibers.com)*	100% polyester	bonded	soft, crushes with no wrinkling	machine-wash, dry-clean	smooth face and backing	none
Quilter's Dream Cotton, Request Loft *(QuiltersDreamBatting.com)*	100% cotton	needle-punched	soft, wrinkles slightly	machine-wash	smooth face, slightly rippled backing	none

Best fabrics: silk dupioni, charmeuse, and broadcloth; lightweight cotton and wool; rayon; linen

help you match your batting to your project, no matter what style you're making. I'll also provide pointers on assessing battings yourself so that you can experiment with some of the many choices that aren't listed here.

The basics of batting

Most battings are developed for quilts and are packaged in bed-size cuts, but some are available by the yard. The packaging usually tells you about care recommendations and fiber content—from polyester and cotton to luxury blends with cashmere, alpaca, or silk. As with other fabrics, you're likely to find that synthetic batting provides less warmth and breathability than natural fibers such as cotton and wool. Some batt packages indicate the degree of loft, or thickness, of the batting and may even tell whether or not the batting will beard (when the fibers migrate through the fabric). The cost varies depending on fiber content.

Batting is usually marked as either bonded or needlepunched. In bonded batting, the fibers are held together with a resin or other bonding agent; in needlepunched products, the fibers are interlaced through a process in which the batting is punctured with hundreds of thin needles (resin may or may not be added in needlepunched batting). In general, there's less beard-

Pants, Vogue 7912; batting, Hobbs Thermore; fabric, silk brocade

Batting type and the interval between quilting lines affect drape.

ing with bonded batting. The main textural difference between the two types is that bonded batting feels fluffier and needlepunched batting is somewhat denser.

All of the battings I've recommended are washable, either by hand or gently by machine. Be sure to match the care requirements of the batting you choose with the garment's fashion fabric and lining.

Before you quilt, test the hand of the batting

Knowing what batting is made of is helpful, but more essential, really, is understanding how it will feel in the completed garment. Batting on its own can feel soft, spongy, rough, nubby, dry, heavy, light, or stiff—just as fabric can. And, like fabric, batting can soften with use. To test how a particular batting will change with time and wear, knead a sample of it in your hands for several minutes and observe whether it loses body, wads up, or holds its shape. It's important to select a batting that will react the way you want your garment to react, either softening gently over time or maintaining its original form and structure.

After feeling the hand of the batting on its own, layer a sample between a piece of your fabric and lining. Again, work them in your hands to test the quilt "sandwich" for flexibility, loft, and weight. If they seem appropriate for the garment you've planned, quilt the sample, spacing the rows of stitching as you would for the project. Note that the stitching itself, especially if the rows are closely spaced, can stiffen the finished item, so experiment to find a stitch pattern that produces the desired result.

THE QUILT TEST FOR BATTING

When I was sewing test samples, I set up my swatches and sewing machine as I would if I were quilting a garment. My fabrics were silk dupioni with a china silk backing, and I chose polyester embroidery thread in both the needle and bobbin because this is what I typically use when quilting a garment. Although I like to install a straight-stitch foot when quilting, a zigzag foot or a walking (even-feed) foot can be used as well. After sandwiching a layer of batting between the dupioni and lining, I always press the layers together, from the wrong and then the right side. This step compresses the batting and encourages the layers to meld together slightly.

I chose a simple quilting pattern—a series of parallel diagonal lines stitched at 1-inch intervals—to avoid puckers that can occur in the fabric when you sew in the direction of the grain. For your samples, I suggest you try the quilting pattern you plan to use in your project. An additional pressing after the quilting is done will minimize any rippling.

From puffy to nearly flat, there's a batting for every look.

continued

LOFTY & PUFFY

Batting	Fiber content	Type	Hand	Care	Appearance when quilted	Drifting over a 10-inch square
Mountain Mist Heritage Collection, A Touch of Silk *(StearnsTextiles.com)*	95% polyester, 5% silk	bonded	dry, spongy, does not wrinkle	hand-wash	slightly rippled face and backing	about ¼ inch
Mountain Mist Heritage Collection, A Touch of Wool *(StearnsTextiles.com)*	95% polyester, 5% wool	bonded	dry, spongy, does not wrinkle	hand-wash	slightly rippled face and backing	about ¼ inch
Mountain Mist Heritage Collection, A Touch of Cashmere *(StearnsTextiles.com)*	95% polyester, 5% cashmere	bonded	soft, dry, does not wrinkle	hand-wash	slightly rippled face and backing	about ¼ inch

Best fabrics: tightly woven fabrics like microfiber, silk taffeta, and sturdy cotton

Vest, Butterick 4294; batting, two layers of Mountain Mist Heritage Collection, A Touch of Cashmere; fabric, silk dupioni

When is batting not batting?

Sometimes a nonbatting filler is the best choice for a quilted garment. I like to use cotton flannel or flannelette for drapey garments—or even muslin or gauze. These yield a very thin, pliable quilted fabric but with less texture and loft than batting provides. Even polar fleece can work as batting, but it's best reserved for fitted vests as it's somewhat stiff and bulky.

Watch for drifting and rippling

No matter how divine a quilted garment feels when you wear it, it should look great, too—and not cause you a lot of grief when you quilt the garment sections. When testing batting samples (see "The Quilt Test for Batting" on p. 55 for details), I paid attention to how easy it was to quilt the fabric and batting layers together and what the final results looked like.

As experienced quilters know—and novices find out quickly—fabric and batting layers can have a frustrating tendency to slide under the machine's presser foot rather independently, an action I call "drifting." When this happens, you can end up with uneven edges or batting oozing out from between its fabric and lining. I wouldn't reject a batting for this if its other characteristics were desirable, but it's important to leave a margin of a few inches around each piece to be quilted so that you can recut it as needed after quilting.

Also, remember to begin quilting in the center of a section and work toward the edges so that any drifting is evenly distributed on each side of the finished piece.

Model photos: Jack Deutsch; hair and makeup, Sylvia Pichler. Studio photos: Sloan Howard

When you're quilting through batting and two layers of fabric, it's almost inevitable that some rippling will occur along the stitching lines. In the samples I made, the rippling was usually confined to the wrong side of the piece. A final press with an iron can remove most ripples.

These days, I rarely sew traditional, tailored clothes—but that doesn't mean my wardrobe is all art-to-wear, either. With the many battings available, I can create quilted clothes ranging from sporty and casual to businesslike, dressy, and, of course, artistic.

Threads *contributing editor Mary Ray designs and sews quilted clothes for herself and for competition.*

Jacket, Vogue 2871; batting, Pacafil; fabric, wool crepe

SHAPELY & STRUCTURED

Batting	Fiber content	Type	Hand	Care	Appearance when quilted	Drifting over a 10-inch square
Mountain Mist Cream Rose *(StearnsTextiles.com)*	100% cotton	needle-punched	soft, wrinkles slightly when crushed	machine-wash	smooth face and backing	none
Fairfield Soft Touch *(Poly-fil.com)*	100% cotton	needle-punched	soft, nubby texture, wrinkles slightly when crushed	machine-wash	smooth face, slightly rippled backing	less than ¼ inch
Pacafil Wool Blend *(BacktoBackAlpaca.com)*	50% alpaca, 50% wool	needlepunched, no resins, water repellent	soft, wrinkles slightly	machine-wash	smooth face and backing	less than ¼ inch
Warm & Natural *(WarmCompany.com)*	100% cotton	needlepunched, no resins	soft, smooth, wrinkles slightly when crushed	machine-wash	smooth face, rippled backing	less than ¼ inch

Best fabrics: light- to medium-weight fabrics like wool crepe, linen, silk dupioni, and cotton

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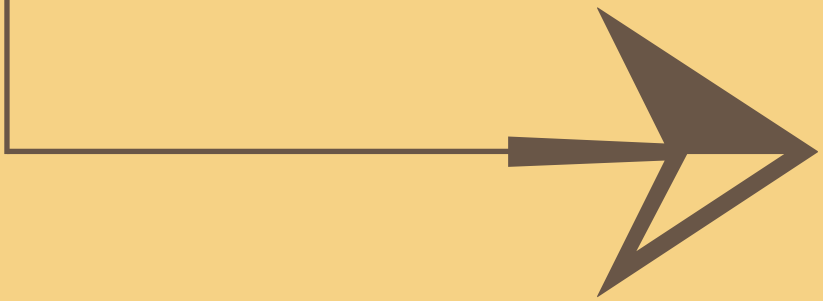


Press Cloths Take Center Stage

Here's everything you forgot to ask about this essential tool

by Claire Shaeffer
(from issue #84)

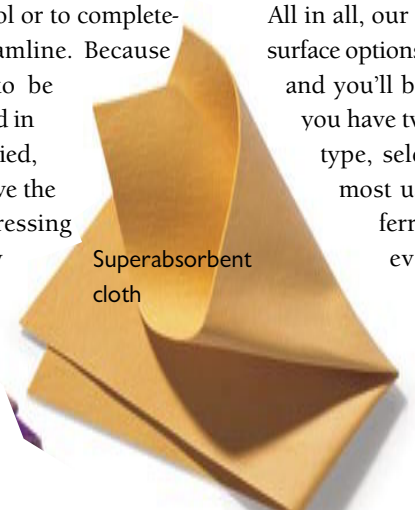
No matter how snazzy or expensive your iron is, it's only part of the tool equation when you're trying to get great pressing results. As unexciting as it may sound, your press cloth collection is as useful as the most exotic iron or ironing board and every bit as essential for beautifully pressed results. Why a collection? You'll get the best results with a lot of different cloths to choose from to suit a wide variety of fabrics and situations.

First consider your surface

Besides the familiar ingredients of heat, moisture, and pressure that your iron provides, pressing variables boil down to two elements: what you're pressing the fabric through—the press cloths—and what you're pressing it against—the pressing surfaces.

Surfaces can be divided into three types: soft, hard, and thinly padded. Most ironing board covers are soft, which is ideal for pressing finished clothing, fabrics with surface interest such as lace, and complex layered constructions such as welt pockets and bound buttonholes. These multiple thicknesses will sink into the padding and won't leave imprints or get crushed. But it's difficult to press creases on soft surfaces, and general pressing is slowed down by too much padding.

At the other extreme, there are unpadded or muslin-covered wood surfaces, found in seam sticks and boards, point pressers, clappers (useful as pressing surfaces in their more usual function, described below), June Tailor boards (see the top left photo on p. 5 of issue no. 84), and large wooden surfaces used by tailors, called cheese blocks (pictured at top on p. 46), along with hams and seam rolls, which also qualify as hard surfaces. All these are needed to press a sharp crease or edge into a thick fabric like wool or to completely open a seamline. Because wools need to be pressed or held in shape until dried, you can remove the iron when pressing against any of these tools, and replace it with a wooden clapper that doesn't add heat, while still maintaining the needed pressure.



Sewers need soft and hard surfaces only in special circumstances, so I suggest that you have as your main surface a compromise between these extremes, which will be effective for most construction and finish pressing of light- to medium-weight dressmaker fabrics: a thinly padded board covered with one or two layers of washed wool blanket or coating, tightly covered with heavy cotton drill or moleskin. Keep your soft and hard surfaces available as accessories in the form of folded toweling, multiple woolen layers, and small, thickly padded boards, and the hard surfaces just described.

All in all, our pressing-surface options are pretty simple, and you'll be in good shape if you have two or three of each type, selected to suit your most usual needs or preferred methods. However, press cloths can be almost as varied and dis-

Tools of the pressing trade: "Under" tools (top photo, clockwise from upper left): ham, point presser and Seam Stick on cheese block, pressing mitt, seam roll, and pair of clappers. Pile fabrics require special handling and special tools to avoid crushing the pile (bottom photo, from left): synthetic needle board, mohair plush (see the chart on the facing page), and VelvaBoard.

tinctive as the fabrics you sew, simply because they're fabric, too.

Press cloths customize your iron and your surface

The most familiar purpose of a press cloth is to protect the fabric under it from an iron that is too hot and/or too steamy. But a press cloth can also be used to provide additional moisture, lift and refresh the fabric's fibers, preserve its texture, prevent shine, and avoid flattening the fabric's surface. In fact, the press cloth allows you to customize your iron to have just the qualities your fabric needs, especially when you're pressing against the right side of the fabric. You can also use press cloths as pressing surfaces, if the texture of your fabric requires protection from even a soft surface, as I'll describe below.

I rely on a variety of press cloths to achieve the desired results, and I often use several different cloths when pressing different sections of a garment. Here's what I consider when selecting a press cloth:

The fashion fabric—What is its fiber content, structure, and weight? Does it have any special characteristics such as pile, texture, pressing difficulty, tendency to water-spot, or heat sensitivity?

The reasons for using the press cloth—Do I need to provide moisture, protect the fabric, or brighten and refresh the fibers?

The desired result—Do I want a crisp, well-pressed finish, or a soft, unpressed look?

Using a press cloth: wet or dry, over or under?

Generally, press cloths are placed between the fabric and iron, but they can also be used to cover the pressing surface before the garment is placed on it, to generate an abundance of steam, or some combination of the two. Press cloths can be used dry or wet.

Dry press cloths are used most often when pressing fabrics that water-spot or are heat-sensitive, and for pressing wool and fabrics with texture or pile. For fabrics that water-spot or are heat-sensitive, use a dry cloth over the garment section you're pressing to protect the fabric either from the damp cloth used above it or from the steam or heat of the iron.

When pressing wool, cover the pressing board, seam roll, ham, or point presser with a large, dry, wool cloth before positioning the garment section over it. Then place the right side of the fabric face down over the press cloth. After the garment is pressed and removed, the static electricity between the two woolens lifts the fibers, brightening the fabric face. I also use a smaller dry wool cloth after pressing with moisture to firm or set the pressed area and whenever I'm pressing the face side.

To avoid flattening the pile when pressing velvets, other pile fabrics, and fabrics with texture, use mohair plush, a needle board (see the bottom photo), or a VelvaBoard on the surface when pressing from the wrong side and self-fabric scraps when pressing the face side. These aids work particularly well when pressing with light to medium pressure, for pressing large sections, or when pressing over a ham or point presser. However, when more pressure is needed, a needle board (used with the fabric face down) is a better choice, because its wire or plastic needles won't collapse like the pile of a fabric press cloth. All these tools are available from any good notions source.

The primary reason for using a **dampened press cloth** instead of a steam iron is that it is easier to control and confine the moisture than when using steam. I prefer an all-purpose, transparent, or super-absorbent cloth when I need to dampen it. When I need even more precision, I'll use a tightly rolled piece of fabric, called a dabber or dauber (see the photo on the facing page), to brush the moisture exactly where I need it. I generally use a dabber with a wool or heavy press cloth and sometimes lightly apply the moisture directly to the fabric.

To dampen the press cloth, wet one end of the cloth, and wring it out. Fold the cloth so the wet end wraps around the dry end. Press to distribute the moisture evenly. To dampen a dabber, dip one end in water, and shake out the excess moisture so that it's wet but not dripping.

With many fabrics, you can place the dampened cloth directly on the area to be pressed and then press. For fabrics that water-spot, first cover the section to be pressed with a dry cloth, and then apply the dampened cloth or brush the dry cloth with the dabber.

You can also use a press cloth to create even more steam than most domestic irons will produce.

Photos: Judi Rutz

PRESS CLOTHS: TYPES AND USES

Type	Characteristics	Uses	Materials	Preparation	Comments
All-purpose cloths	Absorbent, light- to medium-weight	General pressing, protecting fabric, adding moisture	Cotton muslin, sheeting, diapers, linen handkerchiefs, old napkins, tea towels, plain weave silk scraps	New muslin: Machine-wash several times, boil in soapy water to remove sizing Other new items: Wash once Recycled items: None	Protect the fabric surface from heat and water spotting.
Heavier press cloths	Absorbent, holds more moisture than all-purpose cloths	Tailoring wools and linens, pressing heavier fabrics requiring more moisture and more pressure, setting creases and pleats	Drill, denim, duck, hair canvas, linen suiting, commercial cloths impregnated with beeswax	New cotton and linen: Machine-wash or boil to remove sizing Hair canvas and commercial cloths: None	Protect fabric surface from hot, dry iron.
Lightweight cloths	Absorbent, lightweight, transparent	Pressing to smooth fabric, removing wrinkles, opening seams and darts, setting edges	Silk organza, satin-faced organza, handkerchief linen, cotton batiste, organdy	New cotton and linen: Wash to remove sizing	Use double layer—silk organza is much thinner than satin-faced cloth.
Wool press cloths	Soft, absorbent, light- to medium-weight wool	Wool: Brightening fibers, preventing shine and scorching Lace, embroideries, and other textured fabrics: Preserving texture	Wool flannel or crepe	None (wash after using)	Use white or cream for light-colored materials.
Pile cloths	Thick, noncrushable pile	Pressing most velvets and velveteens, other pile fabrics, and wool	VelvaBoard, June Tailor board, mohair plush (mohair plush is made of synthetic fiber and has stiff bristly pile, available from upholstery shops and interior designers)	None	Mohair plush is easy to use with ham, seam roll, or point presser. When pressing fabrics that are easily marred, press face down over wire or plastic needle board.
Super-absorbent cloths	Nonwoven, holds a lot of water without dripping, does not dry out quickly	Steaming garments, shrinking uncut fabrics, traveling	Synthetic chamois	None	Available with household cleaning and auto supplies. To create abundant steam, wet cloth and wrap it around iron.
Nonstick press cloths	Nonfabric	Applying fusibles	Pressing paper, nonstick press cloths, recycled paper from fusible webs	None	When fusing, cover pressing surface and garment with nonstick pressing paper.
Dabbers		Applying moisture directly to fabric or press cloth, using instead of damp cloth or steam iron to dampen fabrics when pressing with a dry iron	Wool or cotton dabber, cellulose sponge	Tightly roll up 4-in. by 6-in. wool or cotton rectangle, and secure with stitches or cord to make 1-in.-thick, cigar-shaped dabber.	Dabbers can be used with or without press cloths.

When shrinking fabrics, removing wrinkles, or raising pile, wrap a wet cloth around the iron to create a profusion of steam. Use a superabsorbent cloth, and wet it thoroughly. Wring out the excess moisture so that the cloth is not dripping.

Test and experiment

There are no specific formulas for pressing success, and it is not uncommon for two individuals to successfully press the same fabric quite differently. For example, I tend to press quickly with a hot iron and press cloth. You may prefer a cooler iron with slower pressing. Nonetheless, with a little experimentation using various amounts of heat, moisture, pressure, different press cloths, surfaces, and pressing methods, even a novice can eliminate the uncertainties of pressing. To determine the most appropriate methods for a particular fabric, begin by test-pressing on fabric scraps before pressing the individual garment sections.

These guidelines and the chart show how I use press cloths; hopefully, they'll point you toward solutions and approaches you've not yet considered or tried. ♦

Dabbers

Claire Shaeffer writes about and teaches couture sewing techniques from Palm Springs, Calif.

Sewing without pins is quick, safe, and precise. It's a skill that comes with practice. Start with straight seams; you'll soon be easing in sleeves.

Sewing Without Pins

You really can do without them; it just takes practice

By Carol Adney (from issue #36)

A baseball player throws, catches, and hits a ball hundreds of times before playing a game. In sewing, we read, "Sew shoulder seam," and that's our beginning. Practice in sewing to most people means ripping out and trying again.

So I'm about to ask you to cut perfectly good fabric into little practice pieces, many of which you will later throw away. I'm pitching a beginning sewing class that's not just for beginning sewers. It's a series of exercises that I have developed so that many students could become skillful, employable sewing-machine operators. But in demonstrating and mastering the exercises my own sewing became faster, more accurate, and freer from the constraints that were limiting my style.

I've gradually thrown away my sewing pins. I keep one or two around for holding gathering threads, but that's all. What started out as not pinning straight seams has evolved into a sewing method I use constantly. It's the best of two very different approaches to clothing construction: factory sewing, with its emphasis on speed and accuracy in one operation; and home sewing, which requires that one understand all the steps from cutting to finished piece.

There are advantages to sewing without pins. No one in my house steps or sits on pins. I don't break machine needles sewing over them, and my overlock cutter has never been dulled by one. I recently sewed a satin gown in which every pinhole would have been preserved for centuries.

The most dramatic improvement has been I setting sleeves. After years spent avoiding sleeves altogether, I now look forward to the sleeve with the anticipation of seeing magic happen. The key to this transformation is practice. Rather than wait until I had to sew in a sleeve, sweating over whether I could do this one well, I practiced a simple sleeve until it was no longer difficult, then moved to more difficult sleeves with more fullness and ease.

Building skills

Here are two exercises I devised to help you get a feel for sewing fabric without prepinning. At the risk of sounding school marmish, I urge you to do each of these practices correctly at least six times before you try the sleeve.

If you have some expendable top-weight cotton (or poly/cotton blends) in your fabric collection, here's a good way to use them up. Or buy a couple of yards of fabric from the remnant table. There is no need to prewash before cutting. Cut one yard into 3-inch (crossgrain) by 18-inch (lengthwise grain) pieces.

I use a ½ inch seam allowance in most sewing because it's more efficient. I trim ⅛ inch from the seam allowance of patterns to keep my balance points in correct relation to one another and use ½ inch consistently, except for collars, which is another subject. If you are comfortable with ⅝ inch, and your machine has a good mark on the throat plate at that distance from the needle, by all means substitute ⅝ inch where I say ½ inch. If you are ready to try something new, find a good ½-inch mark for your seam allowance and try it my way. A wide presser foot and an infinitely adjustable needle make things easy. Simply set the right-hand edge of your foot as your ½-inch guide. If your machine doesn't come so equipped, mark the throat plate with tape, typing correction fluid, or permanent marker so that you have a clearly visible guideline. Since you are training your eyes to work for you, don't use a mechanical or magnetic seam guide.

Straight stuff—Place two fabric pieces right sides together with the ends and long cut edges matching (ignore the selvages). Position the pieces to be sewn under the presser foot so that the long edges are exactly on your ½-inch line and the top edges are directly under the needle. Lower the presser foot and sew forward three to five stitches.

Stop your machine and lower your needle to its lowest position in the fabric. Now move your hands toward you to the ends of the pieces, and align the two pieces exactly. Holding the fabric between your

thumb and the first finger of your right hand, with your thumb on the bottom, tug the fabric gently toward you, pulling out the whole length of the seam.

If the edges don't magically cooperate in laying themselves out to be joined, adjust them with your left hand until they do, without losing your right-hand grip. If the upper layer moves too far to the right, use the fingers of your left hand on top with the thumb on the bottom to pull the top edge back. If the under-fabric strays, place the fingers of your left hand between the layers, adjust the bottom layer, then hold them both down from the top.

Begin stitching the seam, holding the end in your right hand and the two fabric layers together against the machine bed with the tips of your left-hand fingers. Your left hand should start as far from the needle as your machine table allows, and follow along as the fabric flows under the presser foot. As it approaches the front of the presser foot, move your left hand back toward your right and continue sewing forward. Should the fabric slip out of alignment, correct it as explained above. During the whole stitching operation, concentrate on two things: keeping those even edges exactly on your ½-inch guideline. Don't worry about backstitching at this point. Remember, this is only practice.

Check your work in two ways: First, look at your fabric edges. They should be perfectly matched. Any error of more than 1/16-inch should be redone. Second, place a straight edge along your stitching line. Once again, look for no more than a 1/16-inch deviation from the straight line. Each error here is doubled in the finished seam and multiplied by the number of seams in the garment. A ⅛-inch difference in each seam can mean a 1-inch difference in a four-seam garment.

Following curves—Of course garments aren't made up of straight lines only. To build your skill at sewing evenly along curved edges, try this exercise. Cut twelve 8-inch diameter circles of fabric. The goal is to sew two circles together, one on top of the other, in a continuous seam with the edges evenly matched and your seam allowance consistently ½ inch.

To rotate the fabric, anchor the center of the circle by pressing down onto the machine table with the index finger of your left hand and "walking" the fabric around with the other fingers. Keep your eye on the front of the presser-foot toe.

Easing on down—Now that you can follow a curve and sew a perfectly straight seam without pins, let's add a little more challenge. Pattern pieces are often marked "ease" from one point to another. The two pieces being joined are not the same size, but need to come out even anyway. Easing is simple if you control the fabric yourself and feed it to your machine so that the machine can do the work. It's much simpler than pulling up gathering stitches.

Trim ½ inch from the end of one of your practice pieces. Lay an untrimmed piece right side up on your machine table and the shorter piece right side down on top of it. The first rule is: the longer piece must always be on the bottom. Begin as in the first exercise, lining up the top edges and those to be seamed together, and sew a few stitches to hold them.

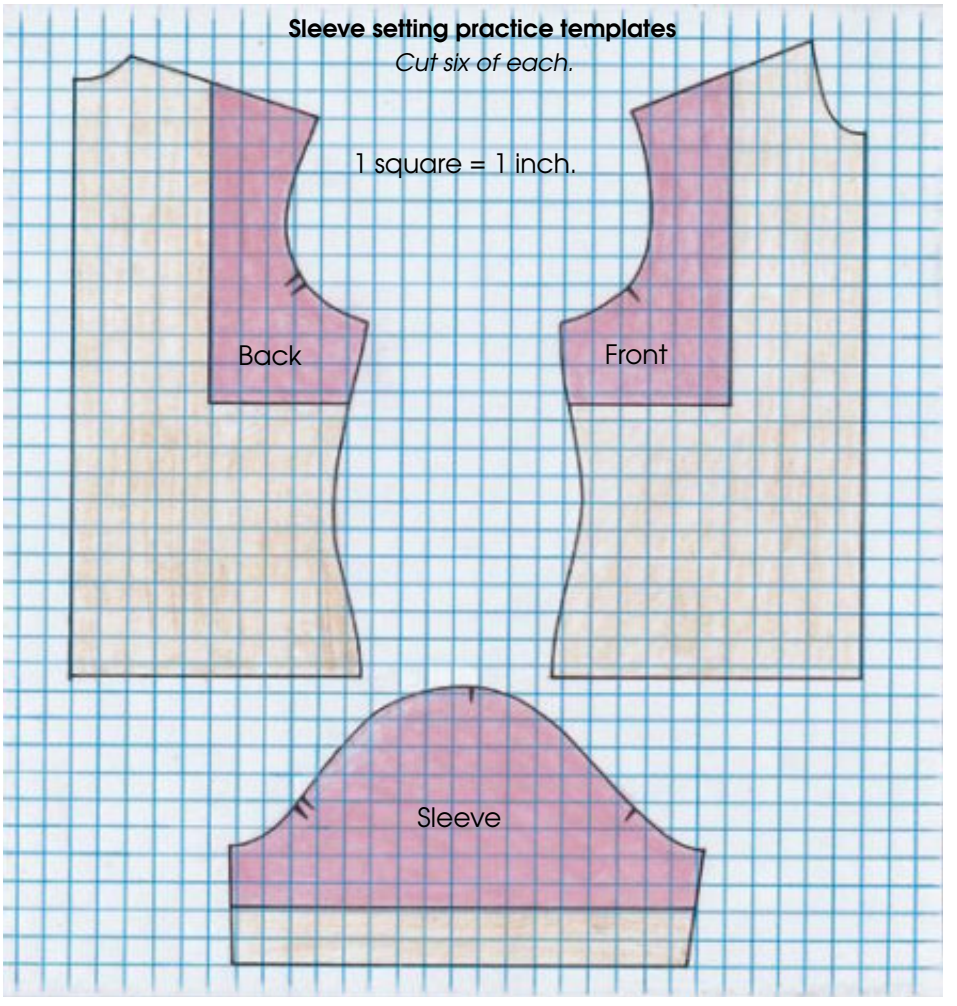
Move your hands toward you and match the opposite ends. In the bottom fabric, you'll find considerable slack, which will be eased into the seam.

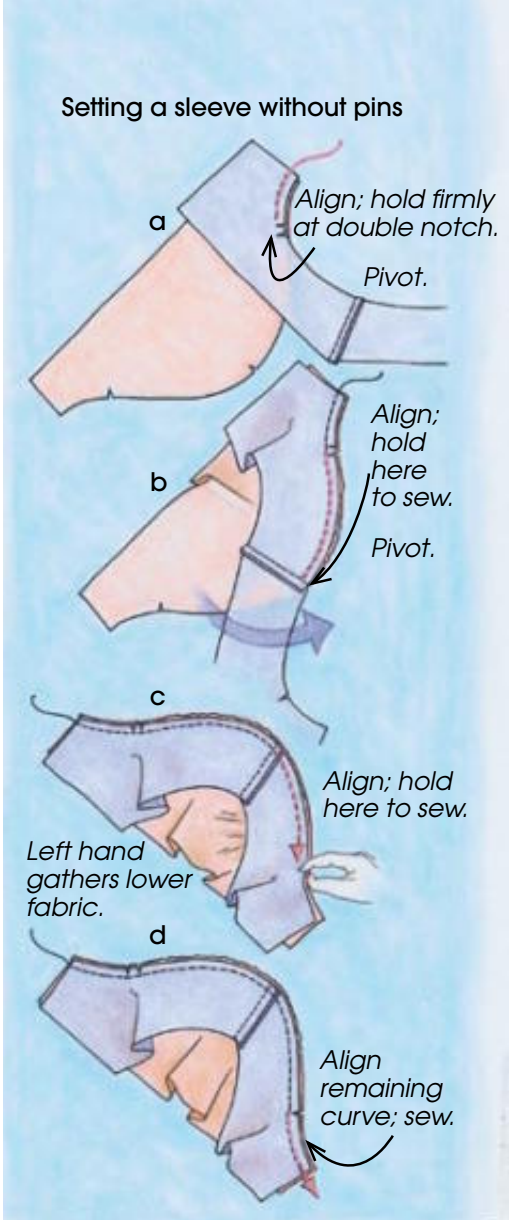
The trick here is to let the feed dog of your machine do the work while you guide the fabric and nudge it into position. Hold back very slightly on the top fabric, while letting the feed dog pull the excess bottom fabric along. I lengthen my stitch a little to increase the throw of the feed dog. This will cause it to pull in more fabric with each stitch.

Hold the two pieces of fabric in your right hand, guiding from slightly above the level of your machine bed so that the lower piece won't bind on the machine. Use your left hand between the pieces to keep the edges even and to push the lower fabric gently toward the feed dog, as shown in the photo on the facing page. Stitch the entire seam, trying to ease evenly throughout the length. At first, you may find that you have an unwelcome amount left at the end of the seam, but practice will show you how much to pull the top layer and push the bottom so the pieces ease evenly from beginning to send.

Check your completed seam to make sure that the edges are even and that the stitching is ½ inch from the edge all along the seam. Once you can get consistent results with a ½-inch difference in the lengths, try cutting off more in ¼-in. increments to see how much you can ease in neatly. Easing one inch over 18 inches is not too difficult, with practice. See how far you can go before it becomes impossible.

For comparison, try the same exercise, but cut the pieces on the cross grain.





To set a sleeve without pinning or gathering, train your hands and eyes to hold and lead the fabric layers into the needle. Line up critical match points and edges before you start stitching; stop to adjust with the needle down, at each notch and at the shoulder seam. The fingers of the left hand are spread to control the longer piece, which is on the bottom. (Photos by Susan Kahn)

You'll find a marked difference in the handling, and the easing will be much less difficult. Bias edges are simpler yet.

Easing gives a contour to what started out as two straight lines. This is the most important use of easing in garment construction: it molds and shapes the garment to our bodies.

Setting sleeves

To set sleeves without pins and pain, practice is absolutely crucial. Cut some practice pieces and sew a few sleeves: at least three left and three right.

You won't need to make three whole blouses, or even one. Instead, make a set of templates from a favorite pattern with a set-in sleeve which needs some easing. Or use the grid to enlarge the templates in the drawing on p. 63. Don't use a man's shirt pattern or a sleeve with an almost-flat cap.

Cut the templates from oaktag, tracing the relevant portions of your pattern's front, back, and sleeve. Cut six practice sets, laying the templates carefully on the fabric grainlines and cutting with a rotary cutter if possible. Accuracy in cutting will make all the difference between loving and hating sleeves. Make sure you have both left and right bodice and sleeve parts. Make ¼-inch clips at the balance points: one clip on each garment front; two clips for each garment back; and corresponding clips on the sleeve to make the back, front, and shoulder seam.

Sew all the shoulder seams of the garment pieces. Don't press the seams open. The seam allowance will be turned toward the front when the sleeve is set.

Now for the fun part: Lay one sleeve on your machine bed, right side up. Lay one of your prepared garment sections on it, right side down. Make sure that the single and double notches of sleeve and garment match. If they don't, you'll set a left sleeve in a right armscye, or vice versa.

Line up the sleeve seam from the underarm to the notch. Put it under your presser foot and fasten the beginning of the seam with a backstitch, then stop with your needle lowered. This curve should match exactly without easing, so use your seaming techniques to align the fabric edges and stitch without easing from underarm to first notch, following the curve carefully and keeping the edges on your seam guide.

At the notch, stop your machine and lower the needle into the fabric. Lift the presser foot and pivot the garment to the left so that the shoulder seam falls a little to the right of the needle (drawing a, left). Letting the needle and the presser foot hold the sewn portion, match the shoulder seam to the shoulder notch of the sleeve and hold them together firmly with the thumb and first finger of your right hand. Turn the shoulder-seam allowance toward the single-notched front side of the garment, and hold it in place with your right hand. Don't change this grip until you've sewn the first half of the seam. Place your left hand between the layers of fabric as shown in the photo at left, and, spreading your fingers to cover the distance between the presser foot and your right hand, gently pull the sleeve fabric to the left until the garment and sleeve edges are even. Making sure you lead the fabric into the needle from slightly to the right of center, sew this seam leaving your hands in position.

Stop as close to the shoulder seam as possible, and lower your needle. Lift the presser foot and once again pivot the fabric so you can control it from slightly to the right of the needle (drawing b, left). Move your right hand to the remaining notch; match and hold sleeve and garment while using your left hand to ease the seam (drawing c, left). Stitch to the notch, lower your needle, align the remaining seam, and stitch even to the underarm (drawing d).

Remove your work from the machine and check your sleeve. Are the fabric edges even throughout the seam? Did you maintain an even ½-inch seam allowance? Turn the piece right side out. Is the sleeve set cleanly, without pleats or puckers? Practice six times, and you should note a marked improvement.

I use this method for all sleeves now, including the puffy, full ones I put on my daughter's dresses. For those, I run three lines of gathering stitches (sleeve right side up, loose thread tension) ⅛ inch apart, in the seam allowance. Before starting the sleeve set, I draw up the gathering threads until the sleeve edge is the appropriate length from notch to shoulder seam, and anchor the gathering threads with those few pins I mentioned earlier. I stitch even to the first notch, match shoulder seam and notch, then use a seam ripper to adjust the gathers in the sleeve between the presser foot and the notch held in my right hand.

I stitch the first half of the sleeve seam, pivot, and reposition my hands. I can then adjust the gathering threads, if necessary, and the gathers. Easing with my left hand, I sew the second half of the seam, stitching even from notch to underarm.

I have yet to meet a sleeve I can't set using this method. From the flattest to the fullest, they go in like magic. ❑

Carol Adney taught clothing construction and designed activewear before joining Threads *as assistant editor.*

Next article to start on next page

A fine-quality shirt collar has no puckers on the inside or outside when the collar is shaped in a circle. Coffin often makes collars that can be detached from the shirts.

Making a Great Shirt Collar

Taut sewing's the key

***by David Page Coffin** (from issue #4)*

While investigating the construction of a fine-quality shirt with a stand collar, I developed collar-making procedures that will enable the home sewer to approach the results achieved by the elaborate machinery of the manufacturer. Stand collars, like the ones above, are most often found in men's dress shirts, but they are also used on women's shirts. A stand collar has a stand area, or collar band, separate from the collar area. The stand gives the collar its height. A fine-quality shirt has certain hallmarks. The collar is shaped so it curves around the neck without puckering. The edge seams are hidden under the edge of the collar, which rolls naturally at the roll line. The two collar points are exactly the same shape and length.

My objectives were to build shape or curve into the collar and its stand, to increase the accuracy of the sewing in order to ensure a perfectly symmetrical and precisely sized collar, and to keep seam bulk to a minimum. These concerns grew out of the unsatisfactory results I got when I followed pattern instructions or general sewing texts. After explaining the general techniques, I'll incorporate them into step-by-step instructions for making a stand collar.

The first technique I use is what I call taut sewing, required for many of the top-stitching and construction steps in a collar. Taut sewing eliminates the common problem of additional length being eased into the bottom fabric layer by the action of the feed dogs, and it generally eliminates seam pucker. The technique, shown in the photo at near right, is to pull the layers of fabric equally and in opposite directions, from in front of, and behind, the needle while you're sewing, letting the feed dogs move the fabric under the presser foot. The needle won't be deflected if the tension is kept equal. If the hand behind the needle pulls too hard, the fabric moves faster than the feed dogs, and the stitch length increases; if the hand in front of the needle pulls too hard, the fabric moves too slowly, and the stitch length decreases. Long seams are sewn in sections, so the hands are never more than 12 inches apart. Practice on scrap fabric. Sew a few stitches and stop with the needle

down. Now stretch the fabric gently and start sewing again, moving your hands evenly as the machine moves the fabric. You must still guide the seam accurately while stretching the fabric.

This technique is the basis for the next, which is to stretch one layer more than the other while you're sewing in order to build ease into the unstretched layer. Note that if you lay one piece of 2-inch by 12-inch on-grain cloth on top of another with all edges matching and hold the short ends together to make a circle, the inner strip buckles a little. If you were to add a layer or two of interfacing between them, the buckling would become severe. This is what happens to a flat collar when it curves around a neck. The principle is simply that one circle cannot fit inside another unless it is smaller; the inner circle (under collar) must be smaller than the outer circle (top collar), or it wrinkles. To achieve a smoothly curving collar, the smaller under collar is stretched to match the longer top collar; when it relaxes, the stretched under collar pulls the outer top collar into a circle.

To try this on your two pieces of cloth, first fold them in half and notch the midpoint of each. Then unfold and position them under the presser foot at the midpoint ¼ inch from one edge, and start to sew a seam toward one end. Stitch straight for about ½ inch, and then stop with the needle down. Grab both pieces together at approximately the midpoint of the fabric, with the left hand behind the machine, and grab the bottom piece with the other hand in front of the machine. Now continue stitching, but pull only the bottom piece taut while allowing both to feed regularly, as in taut sewing. Try to keep both pieces aligned and the seam straight.

A more accurate way to do this is to trim the bottom piece ⅛ inch to ¼ inch at each end and, after stitching the first ½ inch from the midpoint, to stretch the bottom piece to match the top. This controls the amount of stretch you give. Try it both ways, however.

Whichever way you choose, you should be able to stretch the bottom piece at least ¼ inch to ⅜ inch by the time you are ½ inch from the end. Stop at this point, with the needle down, turn the corner, and sew the ends together, keeping them parallel. Now return to the midpoint so the stretched piece is still underneath, and do the same thing to the other end. You will be using the other side of the presser foot to guide your ¼-inch seam.

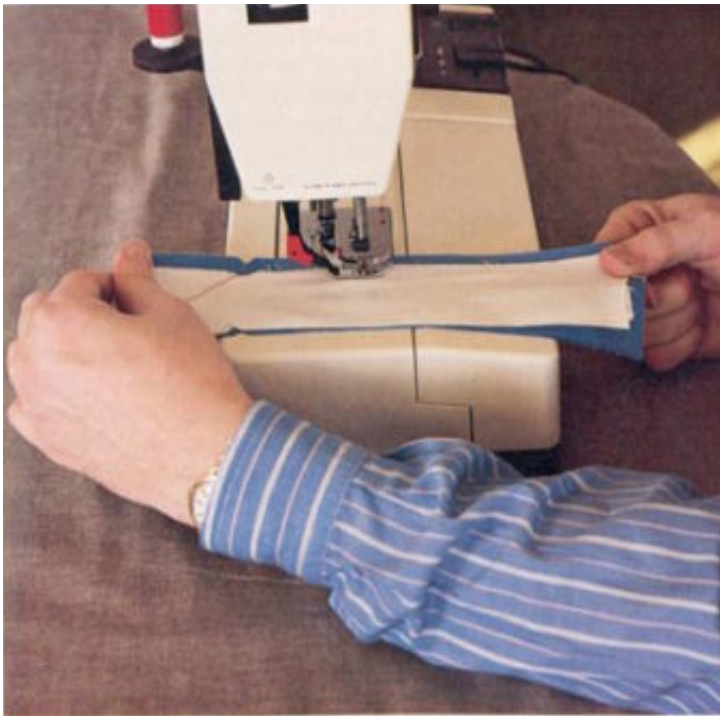
You should see a distinct curve built into what you've just made. Think of it as a rudimentary collar. Trim the seam allowances at the corners and turn it right side out.

Some readers may object that the longer piece should be on the bottom, not the top, to take advantage of the natural action of the feed dogs. I reverse this sensible procedure to ensure the precision of the seam line that eventually forms the collar shape. When sewing a collar, I stitch right along the edge of the interfacing (which has been glue-basted in position on the wrong side of the top collar), and so the top collar, the longer piece, must be on top where I can see it. To glue-baste, I use Baste and Sew Glue Stick by Fantastic Fit.

As you iron your collarlike construction after turning, you should notice several things. The under collar lies smooth, but the top collar is loose, even wrinkled. The short seams at the ends have a tendency to pull under toward the under collar. Even after heavy pressing, the curve remains. The finished collar is also slightly shorter than the original length of the pieces. All of these things result because the stretched under collar relaxes.

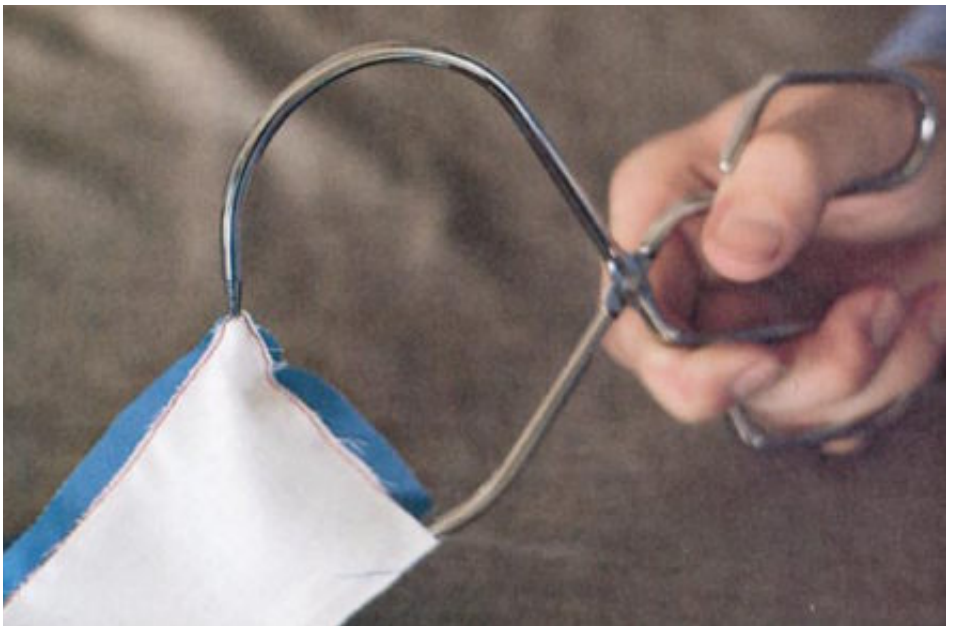
Of course, a collar not only curves around the neck, but it also folds over at the neckline. Thus, a curve is required along the short ends of the collar, at the roll line. Especially if the collar is a longer, pointed one, most of the curve (hence most of the stretching) should be in the 1 inch to 1½ inches nearest the collar stand (see step 7, page 70.) Therefore, when you make a real collar, after pivoting at the corner of the collar point, you will stitch straight, without stretching, until the last 1½ inches or so, and then stretch firmly and stitch right off the end. When you cannot grab the raw edge because it is too close to the presser foot, just press it down against the bed of the machine in order to resist the pull of the feed dogs, at the same time pulling both pieces from the back, as in the right-hand photo below. A straight seam here is much more important than a perfectly even stitch length.

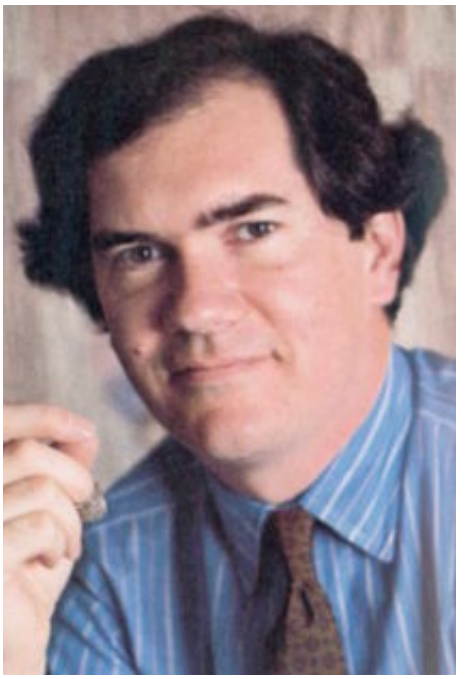
As noted earlier, the finished collar will be slightly smaller than the original pieces. How then do you know how big to cut your collar pieces if sewing them together shortens the length? The answer depends on how much stretching of the under collar you do, how much interfacing you use, and how thick the shirting material is. You must make a sample, using fabric of



To eliminate puckering and build ease into one layer of fabric, Coffin taut-sews. Stitching along the edge of the interfacing ensures perfect shaping.

When there is too little fabric to hold, Coffin presses the fabric against the bed of the machine while still pulling from the back.





A point turner (above) pinches the fabric so that you can turn points without straining the fabric or poking through it. At right, Coffin wearing one of his shirts.

the same or similar weight, and interface it. Measure before and after to determine how much smaller the finished product is than the original top collar, and then add this amount to your top-collar pattern. The amount of stretching you do, and thus the amount of curve, is a matter of personal choice. I feel you should stretch at least ⅛ inch but not more than ⅜ inch at each end. You can establish a fixed amount of stretching for all your cotton dress shirts and cut the under collar short by that amount on each end, centering the notches in the middle. When you make a shirt of a lighter- or heavier-weight fabric, make another sample collar.

When topstitching a collar into which ease has been built, you must also taut-sew. The best way is to start at one short end of the collar and stitch smoothly to the corner or around the curve on a round collar until you're about to stitch the long edge. Then pick up the ends and, stretching until the top layer is taut, stitch to the other corner, maintaining even pressure. Stop stretching, turn the corner, and sew off the other end. The challenge is to maintain an even stitch length while you are taut-sewing—practice helps.

These are the main applications of taut sewing for collars, but there are a few more techniques that will help make your collars perfect. When stitching the collar points, take from one to four stitches diagonally across the point before turning completely (drawing 7, page 70). The number depends on the thickness of your material and interfacing, and your stitch length, which should be quite short.

I construct the entire collar, and in fact the whole shirt, with the machine set at 1.5mm (18–22 stitches/inch), and .8mm or .9mm (approximately 30 stitches/inch) for points or curves of collars where the seam allowances will be trimmed off. Short stitches are important when you're stretching seams, since a seam of short stitches stretches more than a seam of long stitches. I use 100% cotton DMC Machine Embroidery Thread—available from Treadle Art (www.TreadleArt.com)—for all construction and topstitching when making a shirt. It matches the weight of the thread in a manufactured shirt, is appropriate with short stitches, and looks beautiful as topstitching.

When trimming a collar point, clip straight across the tip, parallel to the diagonal stitches, at most 1/16 inch away. Then trim away the sides so that there will be no overlap when the seam allowances are on the inside. Try to trim each collar point exactly the same, as identical construction at each step ensures that the points will look the same when the collar is finished.

A point turner, shown in the left-hand photo above, is a useful tool. It looks like a small pair of ice tongs and works in much the same way as commercial point-turning machines, pinching the fabric at the point between two fingers of metal. You can easily turn the collar right side out or back again without straining the fabric or poking through it. Point turners are available from Fashion Sources, Inc., 600 First Ave, Minneapolis, MN 55403, or Nancy's Notions, Box 683, Beaver Dam, Wl 53916.

After you've turned a collar that has been eased together, the seam allowances will press more easily if you stretch the seams a bit as you iron to stretch out the wrinkles in the top collar. Once the collar is turned, spray it lightly with water to relax the stretch, and then iron the curve in. Creasing the edge of the top collar with the iron helps you position the seams. Keep checking the two points for similarity, and press from the point toward the collar, avoiding wrinkles by curling the collar around the tip of a sleeve board or off the edge of the ironing board, as in the photo on page 70.

The best interfacing for an all-cotton shirt is also all cotton. The cheapest and most widely available option is bleached muslin, which closely resembles the nonfusible interfacing used in the manufacture of fine shirts. It can be used double for collars and single for the other interfaced parts of a shirt: the cuffs, collar stand, and front band. Any thoroughly preshrunk soft cotton will also do, including self-interfacing or scraps from other shirts, as long as no pattern or color shows through and you like the final thickness. A little polyester content would do no harm, but why gamble with a mixture of fibers?

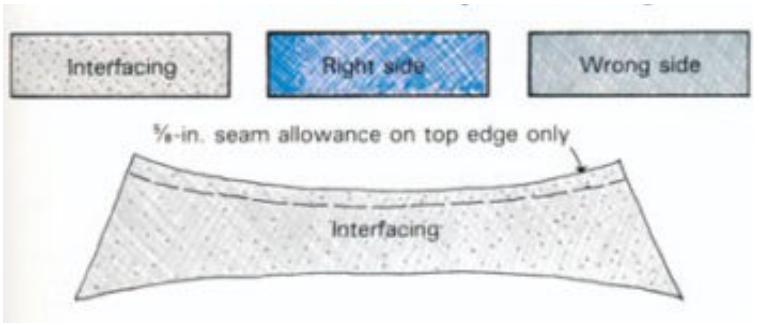
A fusible interfacing will irreversibly alter the outer cloth and permanently remove from the wearer's choice any decision about collar stiffness and appearance. Since it is very difficult for home sewers to fuse completely, as they lack the huge presses of the factories, fusing directly to the top collared piece is like adding a time bomb to your shirt: it's only a matter of time before it becomes unstuck.

Now we're ready to make an actual collar with an attached stand. You can use any pattern for a stand collar, or you can take apart the collar from a favorite old shirt, as I've sometimes done.

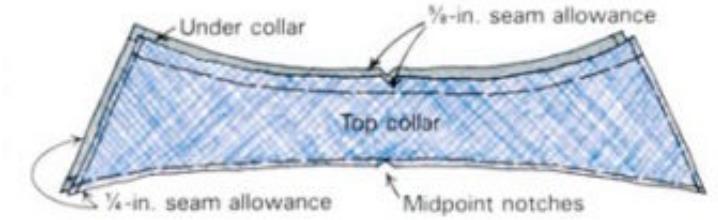
David Page Coffin, a watercolor artist and custom shirtmaker, is the author of The Custom Shirt Book *and* Custom Making Neckties at Home. *Photos by Lisa Long, except as noted.*

The collar

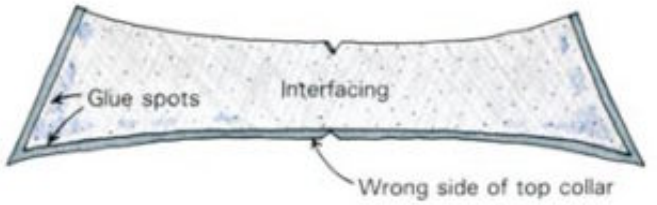
1. Using the collar pattern, cut interfacing, to exact pattern shape, with a ⅝-inch seam allowance, on top edge only (edge you'll sew to stand), and no seam allowance on other edges. Fold in half and cut ends together so they'll match exactly. If you want two layers of interfacing, use spray starch on one layer; lay the second piece on top; iron them together, being careful not to distort or stretch the fabric, and cut as one. Starching all the interfacing isn't a bad idea, as it makes it easier to handle and prevents raveling.



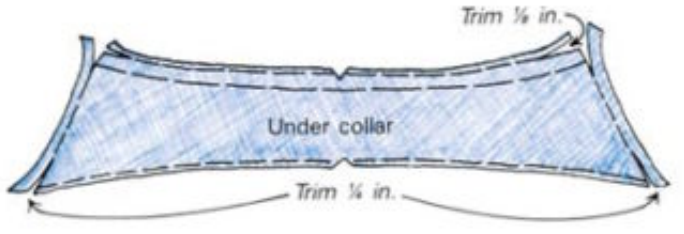
2. Using the collar pattern, cut two layers of shirting fabric (any of the fabrics usually used for shirts, including broadcloth, chambray, madras, oxford, and poplin). Allow a ⅝-inch seam allowance at the top edge and ¼-inch seam allowances at the other edges. Notch the midpoints at top and bottom.



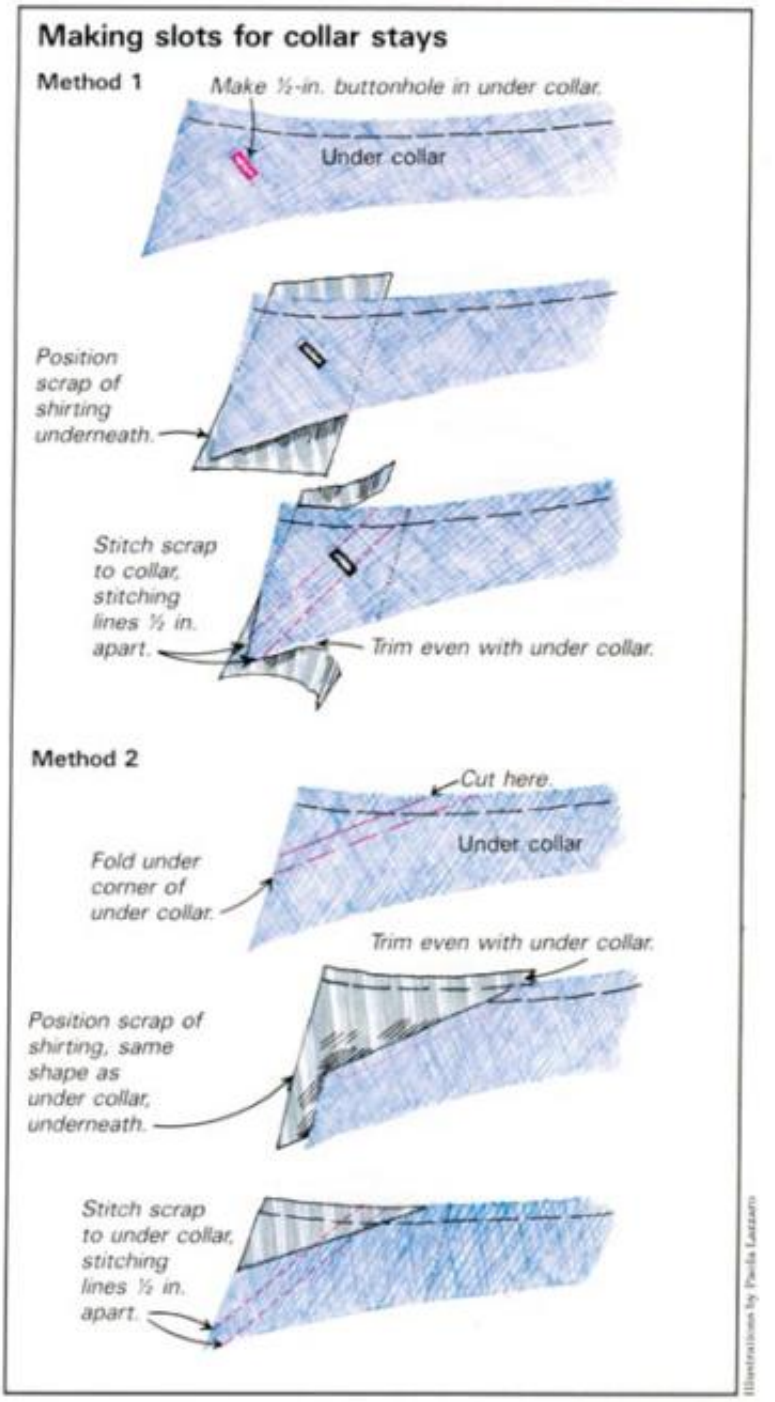
3. Lightly glue-baste all the edges of the interfacing, particularly the points and the front edge. Lay the interfacing on the wrong side of the top collar. Position carefully with regard to stripes or patterns, since you'll follow the outline of the interfacing exactly when stitching the collar.



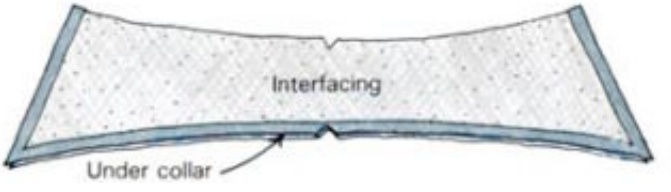
4. Trim the top and side edges of the under collar by the amount you've determined from your sample that you'll stretch back in. Almost ¼ inch is average for each side, and ⅛ inch to ¼ inch is average for the top, depending on the length of the collar points.



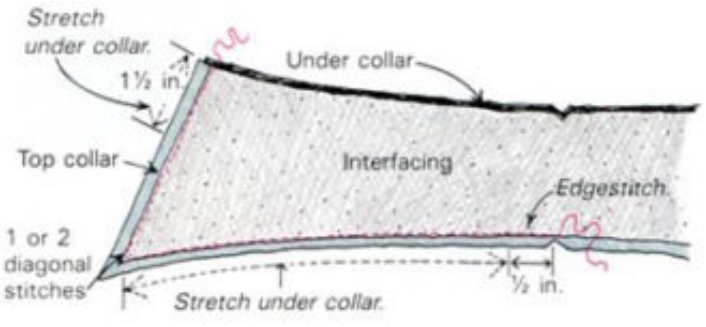
5. Make slots for the collar stays in the under collar, following one of the two methods illustrated below. Collar stays are not required on rounded, button-down, or pinned collars, or if you have your collars heavily starched. Starch and heavy pressing would cause the collar slots to show up on the front of the collar, which would be unattractive.


Making slots for collar stays
Method 1
Make ½-in. buttonhole in under collar.
Under collar
Position scrap of shirting underneath.
Stitch scrap to collar, stitching lines ½ in. apart.
Trim even with under collar.
Method 2
Cut here.
Under collar
Fold under corner of under collar.
Trim even with under collar.
Position scrap of shirting, same shape as under collar, underneath.
Stitch scrap to under collar, stitching lines ½ in. apart.

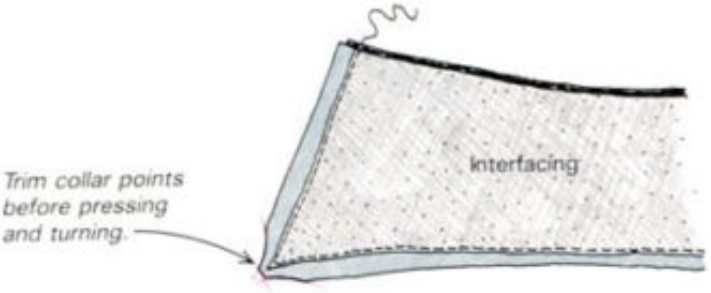
6. Align under collar and top collar at midpoint notches and along bottom edge, right sides together, interfacing on top.



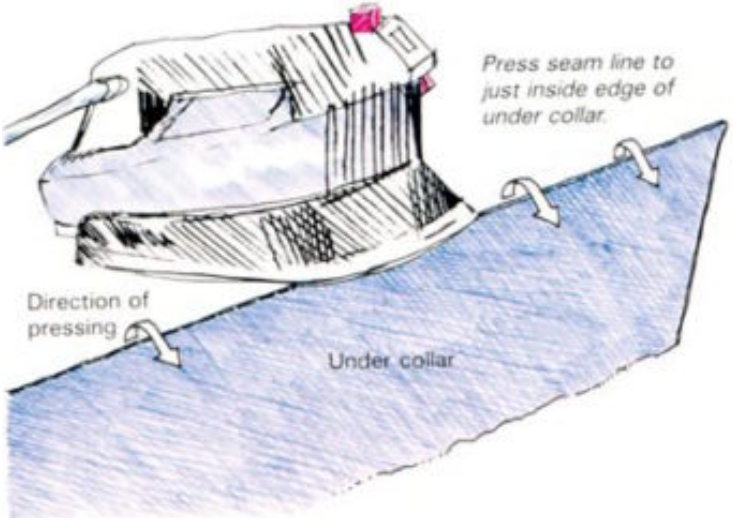
7. Stitch the top collar to the under collar, catching just the edges of the interfacing. Starting at midpoint notches on bottom edge, edgestitch interfacing for ½ inch. Then taut-sew, stretching under collar to align with top collar and edgestitching interfacing until you reach the collar point. Take one or two diagonal stitches across point, turn, edgestitch side of collar until 1½ inches from top edge. Stop and lower needle. Stretch under collar to match top collar, hold down firmly on sewing machine bed in front of needle, and pull from behind, stitching along edge of interfacing exactly. Stitch other side exactly the same, duplicating any slight uncorrected shaping errors. Most important, keep the stitching on the front edges very straight.



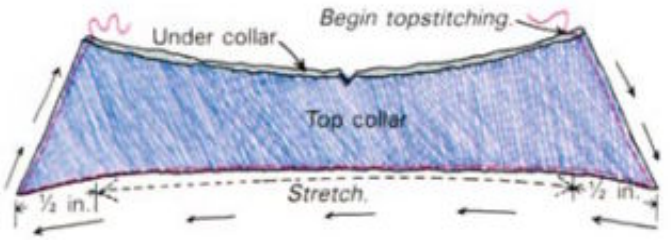
8. Trim seam allowances at collar points exactly the same way on each side. Press and stretch bottom edge flat. Press seam open on point presser, a wooden tool with a narrow pointed arm that slips into the point to be pressed. Turn collar right side out, shaping points carefully until they are as identical as possible.



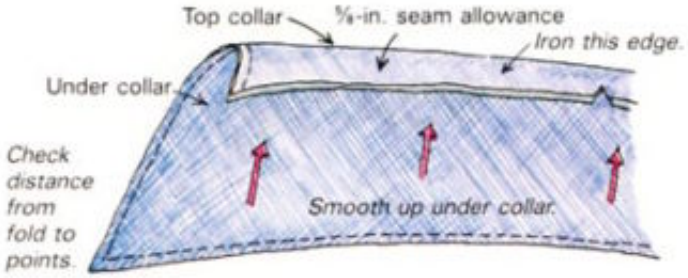
9. With iron, carefully shape the collar, positioning seams just inside the edges. Start pressing at center back with top collar face down on ironing board. Then press points by placing on edge of sleeve board with collar hanging off. Smooth any wrinkles. Shape collar in a circle, and press in the curve (see photo at right).



10. Once you are satisfied with the position of the edge seams and have pressed out all wrinkles, you're ready to topstitch. To topstitch, start at one raw edge and carefully stitch ¼ inch from the edge, stopping when the needle is ¼ inch from each side of collar point. With the needle down, pivot the collar and stitch for ½ inch or so. Then pick up the points of the collar and stretch taut so the top collar is flat against the under collar. Slowly and smoothly stitch to about ½ inch from the opposite point, stop stretching, pivot with needle lowered, and then stitch off the other raw end. This method preserves the curve in the collar and eliminates any puckering in the topstitching and the join in the back that would be caused by starting at midback and stitching toward either end.

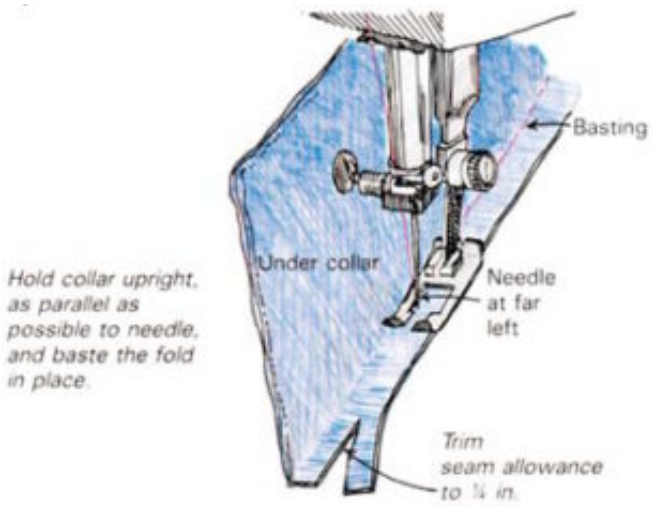


11. To shape the roll line, fold the ⅝-inch seam allowance of both the top collar and the under collar toward the under collar, and smooth the fullness in the under collar up toward the fold. The under collar should stick out slightly beyond the top collar. Iron this edge flat and hard when you are satisfied that enough of the fullness in the under collar has been taken out. You can use a tailor's ham (a firmly packed ham-shaped cushion that is used for shaping and pressing curves) to shape and check the collar. Make sure that the collar points are exactly the same length from fold to point and that the fold hits any pattern or stripe at the same point on both sides.

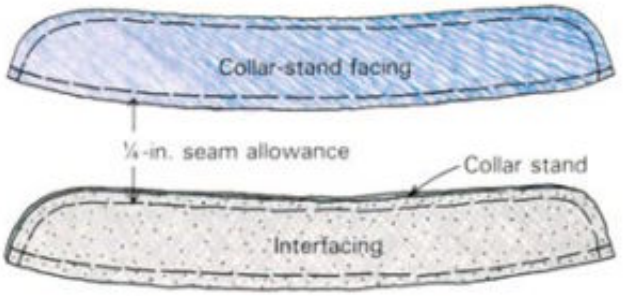


To shape the collar, Coffin presses it on a sleeve board, letting the collar hang off the edge.

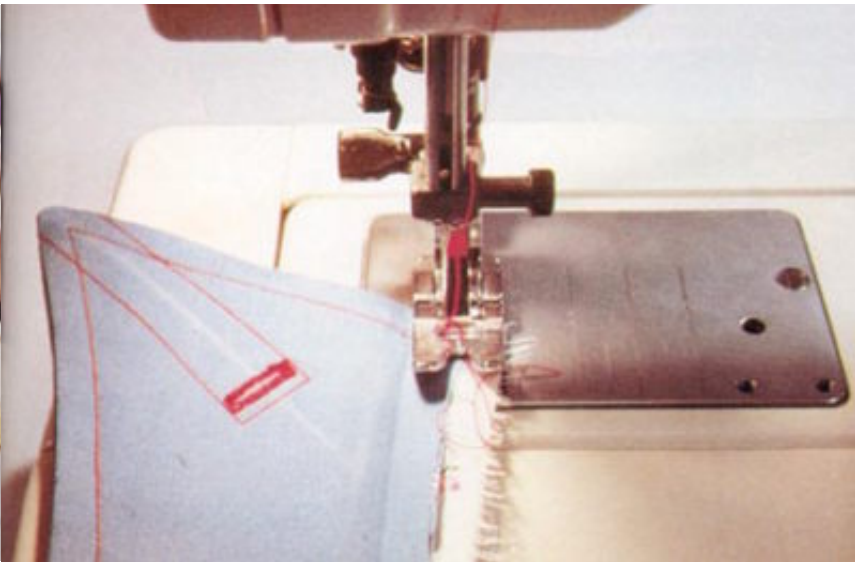
12. When you are satisfied with the shape, position the collar under the presser foot with the needle at far left (or use zipper foot), and to hold the fold in place, machine-baste the seam allowances together approximately ⅛ inch (but no less) from the fold (see photo below). Trim seam allowances to ¼ inch from fold. The collar is now ready to be attached to the collar stand.


Basting
Under collar
Needle at far left
Hold collar upright, as parallel as possible to needle, and baste the fold in place.
Trim seam allowance to ¼ in.

13. Cut two pieces of shirting for collar stand and collar-stand facing, and one piece of interfacing. Lightly glue-baste interfacing to wrong side of stand. I allow ¼-inch seam allowances on collar-stand edges, collar-stand facing edges, and interfacing edges, but you could use ⅝-inch seam allowances and trim the seams later.

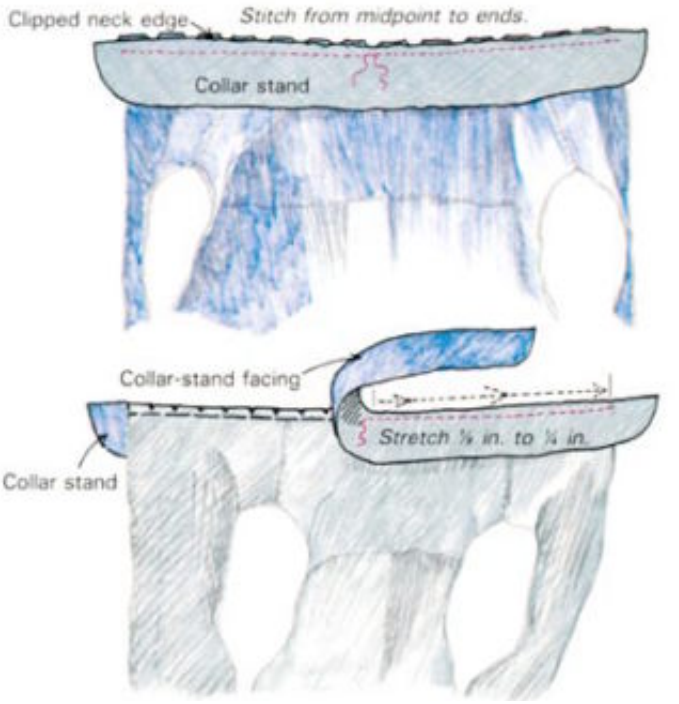


Glue-baste interfacing to collar stand.

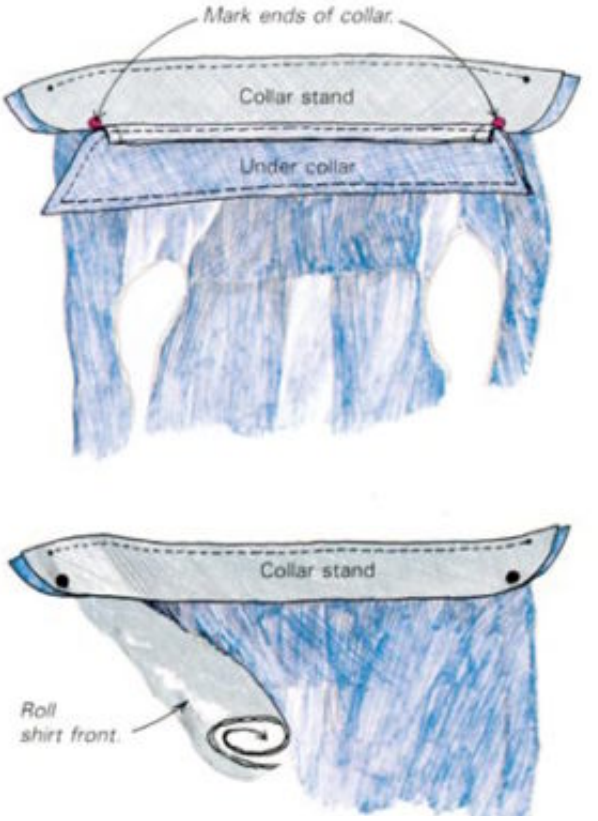


After folding the seam allowances, smoothing out the under collar's fullness, and pressing the fold, Coffin sews the fold in place. Photo by author.

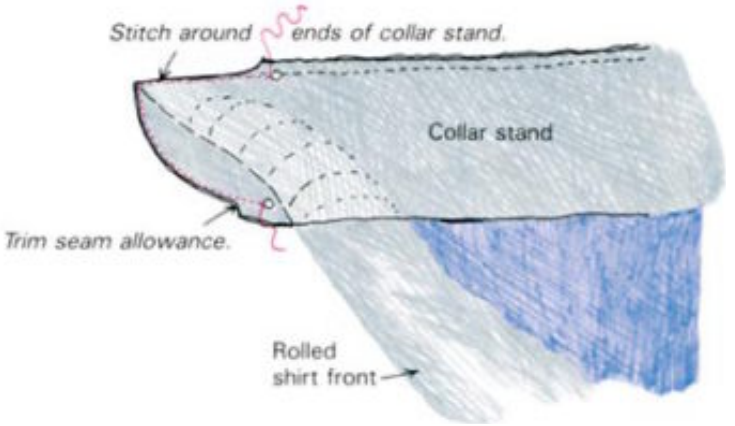
14. Stitch the collar stand to the right side of the neck edge, then the collar-stand facing to the wrong side of the neck edge, clipping the neckline edge as necessary. Stretch the collar-stand facing just as you did with the under collar. Stitch from center back toward ends, but not beyond the front edges of the shirt.



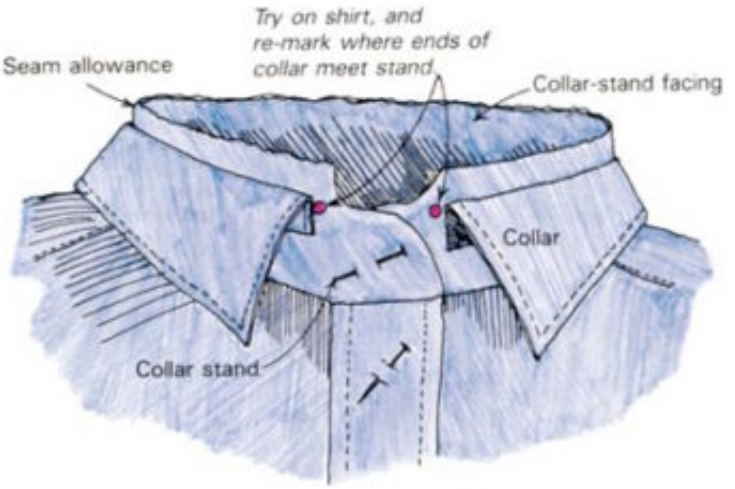
15. Center the collar on the stand and mark the end points. Remove the collar. Roll the shirt fronts until you can bring the top edges of the collar stand together to the marks for the collar.

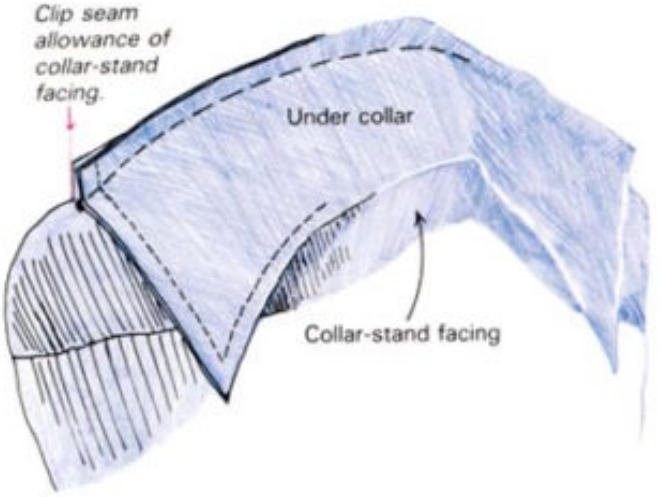


16. With the machine set at approximately 30 stitches/inch, stitch the ends of the stand in the shape you want, and stop at the points just marked. You may want to trace this shape on each end to make them identical. Don't backstitch. Trim the seam allowances, and turn collar stand right side out.

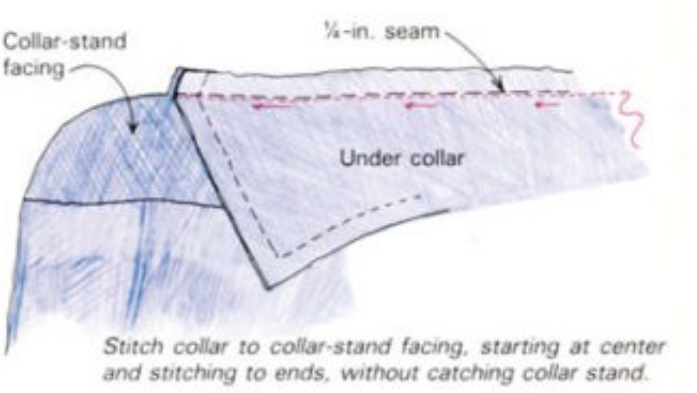


17. Turn the collar stand and facing right side out. Try the shirt on, pinning the front and the stand comfortably closed and checking that any pattern on the front matches as it should. Center the collar on the stand and re-mark with chalk or a washable marker where the collar ends meet the stand. Take the shirt off and clip the seam allowances of the collar-stand facing at these two points.

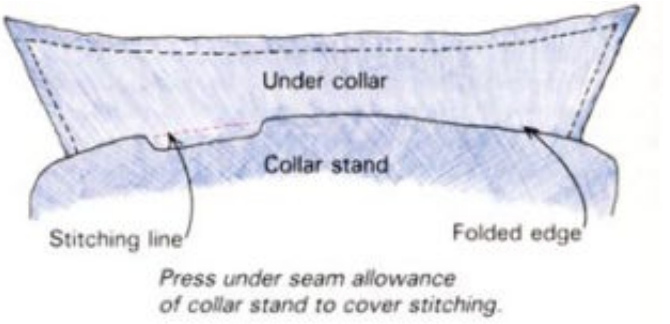




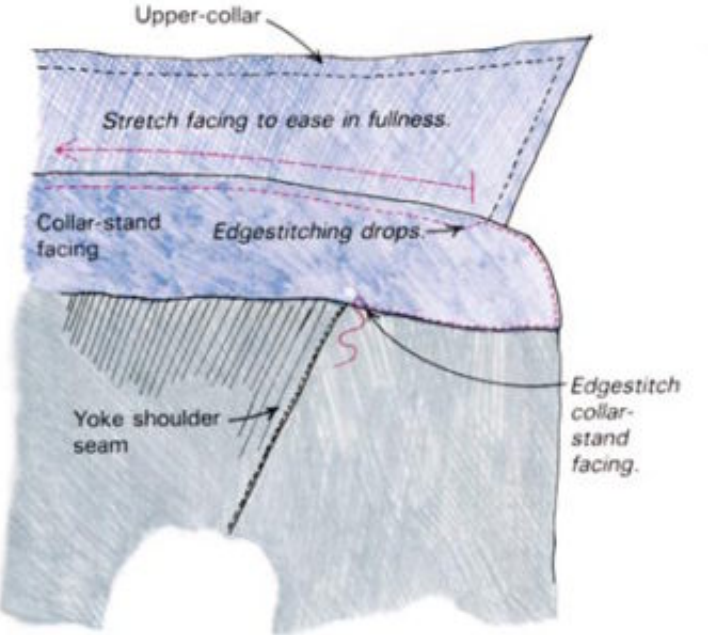
18. Stitch the collar to the collar-stand facing at the raw edge with a ¼-inch seam, without catching the seam allowance of the collar stand in the stitching.


Collar-stand facing
¼-in. seam
Under collar
Stitch collar to collar-stand facing, starting at center and stitching to ends, without catching collar stand.

19. Press under the seam allowance of the collar stand, and glue-baste if necessary, to just cover the seam made in the previous step. This folded edge will be slightly full.



20. With collar-stand facing and upper collar on top and pressed edge of collar stand underneath, edgestitch around collar-stand facing, starting at the yoke shoulder seam and stitching around the end. Edgestitching should be close to edge of collar-stand facing, except where collar is attached. Here, edgestitching drops down slightly to ensure that pressed edge of collar stand is being caught in stitching. Stretch collar-stand facing to ease in fullness of collar stand.



Next article to start on next page

Create a Travel Wardrobe

Put together a minimal, stylish, mix-and-match wardrobe for a trip around the world—or across the state

by Marcy Tilton (from issue #100)

I come from a family of travelers and have spent much of my life on the road. As an adult, I have traveled from Denmark to Kenya for nine months in a Mercedes van packed to the gills, and I've enjoyed numerous travels to Europe, including one three-week jaunt that fused urban Paris, a workshop in the Swiss Alps, and an exploration of Venice. I have crisscrossed the United States to teach sewing, hauling big black suitcases with a tag labeled "heavy" permanently attached, and have driven my fully laden minivan to innumerable sewing retreats. As a result, I realized a few years ago that my favorite travel fantasy was to travel light, to easily carry or pull on wheels everything needed for a three-week trip, and to look and feel great while doing so.

I've worked on realizing that vision for several years, and last year, I fine-tuned my previous efforts when planning for another three weeks in Europe. The photo at right gives you an example of the results of my work. For this trip, I decided to combine past personal experience with advice from travel experts to develop the perfect globe-trotting wardrobe. I sent off for travel catalogs and began haunting travel stores to see what I could learn. I picked veteran travelers' minds for what each considered essential. I read stacks of books and shopped for luggage in upscale stores and in outlet malls—I even took classes in packing. Here, I'll share the lessons I've learned and the strategies I've developed.

At the outset, give up thinking that a travel wardrobe has to be sewn entirely from scratch and that everything must be brand new. That's just not realistic for most of us. And let's face it: How much time do we have to sew nowadays? When I went to Italy last fall, with six weeks in which to get ready, I had to decide how many pieces I could complete in the available time. I surveyed what I already had, determined which pieces were the most important to make, and decided what I would like to wear. This, of course, was greatly influenced by where I was going, for

Rolling luggage, malleable carry-ons, a convertible vest, and a coat designed to fit comfortably over layers make globe-trotting easy.

how long, and what I was planning to do while I was there. In short, I developed a strategy for creating this travel wardrobe.

First I reviewed my current wardrobe, fabric stash, and collection of patterns to see what I already had to work with. Next I took time to define what I expected and wanted from the clothing I would live in day in and day out on my travels, and to determine exactly what and how many pieces I needed. Then I made a point of spending my major sewing time where it counted—on key pieces.

Travel tip

For a warm-weather wardrobe, make a vest in silk organza to wear over a sleeveless top or T-shirt. You'll gain attitude without adding bulk or weight to your luggage.

Start by reviewing your closet, fabric, and patterns

The first step of my journey begins with "shopping" in my own closet and my fabric and pattern collections. I put garments I wear and love most on a clothes rack and display shoes, bags, and accessories under the rack where I can see them and consider them for possible travel attire.

I look for the most flattering garment shapes and silhouettes among these clothes and inventory what I can incorporate into my new travel wardrobe. If a garment from last season worked well, I consider making it in another fabric or color and maybe even improving on the original. I make sketches, take notes, and begin a shopping/want list.

Travel tip

Instead of a lined raincoat, make two jackets from the same pattern in different fabrics. Wear one over the other, or wear each separately.

When reviewing my fabric stash, I look for pieces that work with existing garments and that enhance colors, textures, and function of the developing wardrobe. I prefer to work with solid colors or woven designs rather than prints, because, as a fiber artist, I often create my own patterned fabrics by adding stamping, stenciling, stitching, or embroidery.

During this review stage, I also look through my favorite patterns, particularly for basics like pants, skirts, or tops. Inevitably, I start with too many choices, and ultimately edit out patterns to suit my travel needs.

Early in the planning stages, I do a numbers crunch. That is, if I'm going to travel for three weeks and plan to wear each outfit four times during those 21 days, I'll need five to seven outfits, including what I wear on the airplane. In the "Wardrobe list" on p. 76, I've suggested items and quantities of clothing to pack for a three-week trip.

Destination and weather conditions are important factors to take into account when planning a trip. I have both cool and warm weather core travel wardrobes. I select from one of these for each trip, adding special pieces and eliminating anything that I don't find essential.

Travel tip

Sew T-shirts from unexpected fabrics like a cashmere knit or a velvet burn-out. Make a cardigan to go with it to create a twin set.

Define your wardrobe preferences

Everyone has his or her own preferences about clothing and what's really important for daily wear while traveling. For some people, pockets are key. For others, color or style may be a chief concern. If you take time early on to define what you want, it will make your shopping and packing decisions fast and easy. Here are the requirements and expectations I have about my travel clothes:

Fabrics must feel good, not wrinkle, and not show dirt. Stretch knit velvet is a good example: It can be either hand- or machine-laundered and dried. Crinkle rayon is another good choice if you pre-wash it to exaggerate its texture and to reduce wrinkling.

Clothes must be comfortable— Don't let your clothes limit your activity. I want to be able to sit on the floor or do yoga in any of my clothes. They should have a comfortable waistband and should be styled with an easy fit, the fabric needs to stretch, and skirts must be wearable for when riding a bike.

The style must be distinctive—I want the clothes I make and buy to reflect my personal style. Whether with regard to the color, embellishment, silhouette, or shape of my garments, I want to feel and look distinctive, individual, feminine, and chic—coming and going. When I get dressed, I expect to feel great, then forget about my clothes and go out to explore the world.

My wardrobe must have a color palette—I work within a three- to four-color palette when assembling my travel garments. Black, purple, acid green, and a few shots of coral were the palette for my recent trip to Europe. With limited colors, the wardrobe easily coordinates with itself and opens up to harmonious on-the-road combinations.

Wardrobe list

21 days divided by number of wearings per garment (4) = 5.25. I plan 5–7 complete outfit changes (not counting the coat and jacket).

Coat: The raincoat you can wear to dinner in Paris or stuff in your satchel.

Jacket: You need only 1; it must flatter your figure, be comfortable, not show dirt or wrinkle, work under a coat, and work over all tops. A detachable sleeve lets it serve as a vest too.

Sweater (optional): Not too bulky, in a flattering color from your palette.

Tops: 3–5 long-sleeved T-shirt-type tops in a variety of weights plus 1 cardigan that makes a twin set with 1 of the tops and can be worn with at least 2 others.

Camisole-type tops: 1–2 to layer under other tops or sweater or to wear for morning yoga-stretching or jogging.

Pants (2 pairs): 1 pair stretch jeans; 1 pair soft, feminine pants.

Leggings (2 pairs): 1 pair stretch velvet leggings to wear on the plane, for warmth or lounging; 1 pair lightweight, rayon/spandex, slinky knit leggings to use for exercise or to layer under the skirt or pants for warmth.

Skirt: 1 in a kimono poly crepe.

ONLINE EXTRA

Visit www.threadsmagazine.com to learn about the packing system Marcy uses to keep her clothes from wrinkling.

BECOME A POCKET COLLECTOR

One of the best reasons for making your own clothes is to add pockets to your heart's content. I collect pocket patterns to use in future garments and even to add to ready-to-wear clothing. Pockets should flatter the figure and harmonize with the overall design of the garment. While designing and placing each pocket with attention to accessibility, I also scale it to my size and shape.

How to make a hidden patch pocket

Issey Miyake sometimes uses this pocket on shirts and jackets. It can be hidden on the inside or placed on the outside of a garment. One vertical edge can be caught in the front band or placket, or the pocket can be applied as a stand-alone patch or entered by a vertical welt opening made in the outside layer of the garment. In a plain fabric, it becomes a design detail, and in a patterned fabric, it all but disappears.

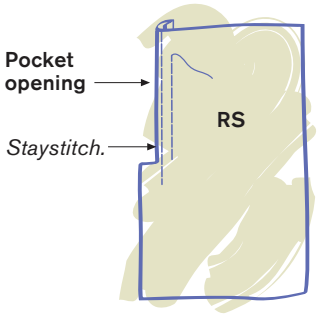
These directions are for a patch pocket topstitched to the inside of the garment with a pickpocket-proof vertical opening on the inside, adjacent to the placket. The finished pocket measures 6½ inches by 10 inches, with a 5-inch opening.

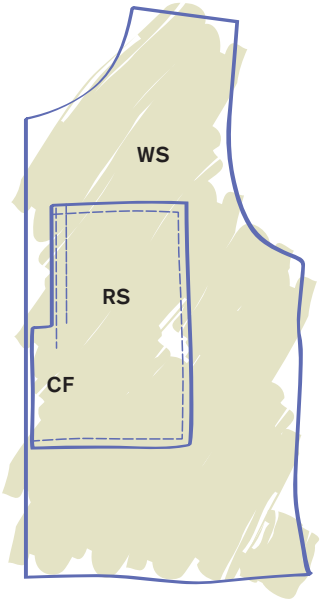
1. Cut rectangle of fabric 7½ inches by 11 inches.

2. Make mark at midpoint of long edge. Staystitch to just beyond mark. At mark, clip from edge to stitching. Fold under ¼ inch twice at staystitched section (pocket opening) and topstitch.

3. On remaining three sides of pocket, press ½ inch to WS.

4. Baste pocket in place, matching raw edge to front edge of garment. Mark a precise disappearing stitching line on garment RS, topstitch from RS using guidelines, and then apply placket or front band.





How to make a hidden hanging pocket

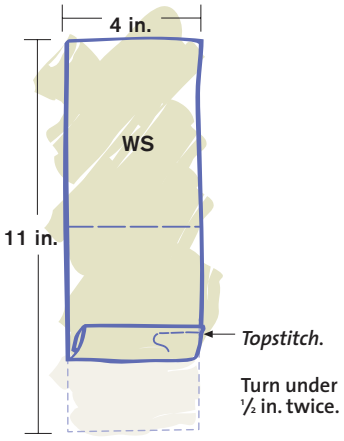
The following little hanging pocket can be added to a skirt, jeans, or leggings in just a few minutes.

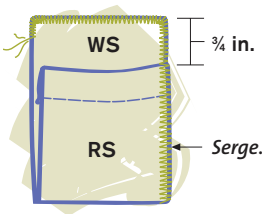
1. Cut pocket fabric 4 inches by 11 inches

2. Fold a double ½-inch hem to WS on one end, press, and topstitch. Fold hemmed end up to opposite end, leaving ¾-inch margin.

3. Serge around all raw edges to finish edges, and make pouch.

4. Place pouch inside garment; align extending end across waistband seam. Stitch in ditch of waistband seam through all layers.





I should be able to layer garments over one another—I like to assemble separates that go with, over, and under each other so I can create new looks from a few pieces and be comfortable. Hence, a jacket and a coat, which will ultimately go over everything else I pack, are essential. The necklines and sleeves must nest together easily, and the jacket must slide smoothly under the coat.

Passion is key—I love every piece of clothing I take and leave behind anything I feel just so-so about.

Design while you sew

I actually start sewing before settling on all the final pieces. While making a favorite pair of pants or a T-shirt, for example, I'll plan more complicated travel garments.

By switching back and forth between simple and complicated sewing, my brain designs while my fingers stitch. I start from the ground up (pants and skirts first) and from the inside out—leggings and T-shirts before the jacket, with the coat last to make sure its style works over everything else. This strategy allows me to consider more than one coat pattern and tissue-fit the candidate patterns over the other clothes to see which style will prove best.

Because these clothes get a lot of wear, I take care to use sturdy construction techniques like French and flat-felled seams, as well as topstitching to hold seams flat and add details like pockets.

Spend your time where it counts—on a jacket and coat

A jacket and coat are the two pieces worn most and seen most by the world. And they're generally the most time-consuming to construct. Because I want to be sure about the patterns I pick for these key pieces, I spend a lot of time considering the options. After winnowing my

Drawings: Linda Boston

Layers work for travel in any season. Here, a lightweight tank, jacket, and over-vest suit up together or independently to be eye-catching from 360 degrees.

jacket-pattern choices down to three or four, I carefully filter the criteria below to decide which one I'll make.

When I expect to wear a jacket every day for three weeks, from morning until night (sometimes even sleeping in it), besides being comfortable, I want it to have a distinctive shape and a high sense of drama. (For me, Issey Miyake patterns often fit this bill.) I add many pockets to my jacket and coat because I also want these garments to serve as "carry-on luggage" and transport a lot of stuff.

If I don't have lots of lead time, I use a pattern that I've made before and know I like. Because I'm repeating it, the previous garment serves as a fitting muslin, and I already know the pattern techniques. When there's only time to make one jacket, I want to be sure it is successful.

In cool or damp weather, a coat may be the one thing that you will wear daily, so the design choice for this garment is crucial. I like a raincoat that is roomy enough to fit over many layered garments, yet folds up into nothing and doesn't wrinkle. And while I love big, long, dramatic, ankle-length raincoats, I don't like them for traveling. There's way too much fabric, which drags on stairs and can trip you. Instead, I prefer a knee-length coat—one with a great shape, of course. I realize that when you're making a short coat, the only silhouette that works below it is a narrow one. Therefore, bottoms need to stay slim—I avoid A-line and long, flowing skirts and wide pants.

Making a roomy coat is much like sewing a big shirt. There's little fitting to it, and it goes together quickly. Single-breasted is the best because it takes less fabric and is therefore lighter to carry. Instead of making a collar, I will wear a big scarf.

Planning a travel wardrobe is part of the joy of the journey. If you combine my strategies with your clothes, fabrics, patterns, and itinerary, you are bound to have a bon voyage. ♦

Marcy Tilton sews travel wardrobes each season in her studio in Cave Junction, Ore.

Travel tip

A shawl is a great travel accessory to wear over lightweight garments or, in cold weather, over or under a coat. And use it on a plane as a blanket.

Photos: Gary Gold; hair and makeup: Judy Neukam

Threads
MAGAZINE
June/July 1985 Number 5

Sewing Swimsuits

How to get perfect fit

by Grace Callaway
(from issue #5)

These swimsuits were made by Grace Callaway and several of her students.

Sewing your own swimwear is easier than you may think, and there are advantages too. You get better quality at a lower price, the style and color you want, perfect fit, and a chance to be creative. Making a swimsuit takes very little time and will provide you with a feeling of satisfaction and accomplishment.

Materials—Swimsuit fabrics have improved dramatically over the past few years. Materials available for home sewing are as good as those used in ready-to-wear suits. Wool used to be the preferred swimwear fabric because of its natural stretch and warmth. But wool absorbs moisture, which makes it both heavy to wear and slow-drying.

Man-made fabrics do not absorb water, so they feel lighter than wool and dry faster. A blend of nylon and spandex is the most widely used for swimsuits. Nylon has a natural luster that resembles silk, and its ability to take dyes makes possible brilliantly colored fabrics. Spandex, a man-made fiber similar to nylon, provides the elasticity necessary for the figure-hugging smoothness and comfort needed in a swimsuit. It weighs less than the old-fashioned Latex (made by wrapping a rubber core with another fiber, usually rayon) and has more resiliency. It also wears longer than other elastic yarns used today. Man-made fabrics' lack of absorbency, however, may make them too hot for sunbathing and active sports other than swimming.

In the past couple of years spandex has been combined with polyester and cotton for active wear. The cotton reduces the luster and increases drying time, but the fabric is cooler and more absorbent and still has the stretch of spandex. This fabric, which is simply called poly/cotton spandex, is used primarily for leotards, bodysuits, and dance costumes, but it's turning up more often in swimwear.

Patterns for swimsuits, once extremely difficult to find, are now widely available in a broad range of sizes and styles from the major pattern companies, as well as from several companies that specialize in multisized patterns: Sew Lovely, Kwik-Sew, and Stretch & Sew. A multisized master pattern is the best choice for a swimsuit because it's easy to alter.

The pattern must be compatible with the amount of stretch in the fabric. Suitable fabrics and the amount of stretch required are given in a chart on the pattern envelope. Directions for determining the amount of stretch of a particular fabric generally are included as well.

Special swimsuit elastic, which is resistant to deterioration from sun, oil, chlorine, and salt water, usually can be obtained from the same sources as swimwear fabrics. The width required for most suits is ⅜ inch, though some styles call for ¼-inch, ½-inch, or ¾-inch widths.

Bra cups are optional and may be purchased or custom-made along with the suit. You might prefer to make your own, since many ready-made bra cups are molded of firm polyester and lack the soft, natural look currently in vogue. Instructions are included with most swimsuit patterns.

Lining is another option. Thin fabrics and light colors may be transparent when wet, so you may want a full or partial lining. Lining for swimwear is the most difficult material to locate. Fabric stores that sell nylon/spandex seldom stock suitable lining materials, so you may have no choice but mail order. (See "Sources," page 84.)

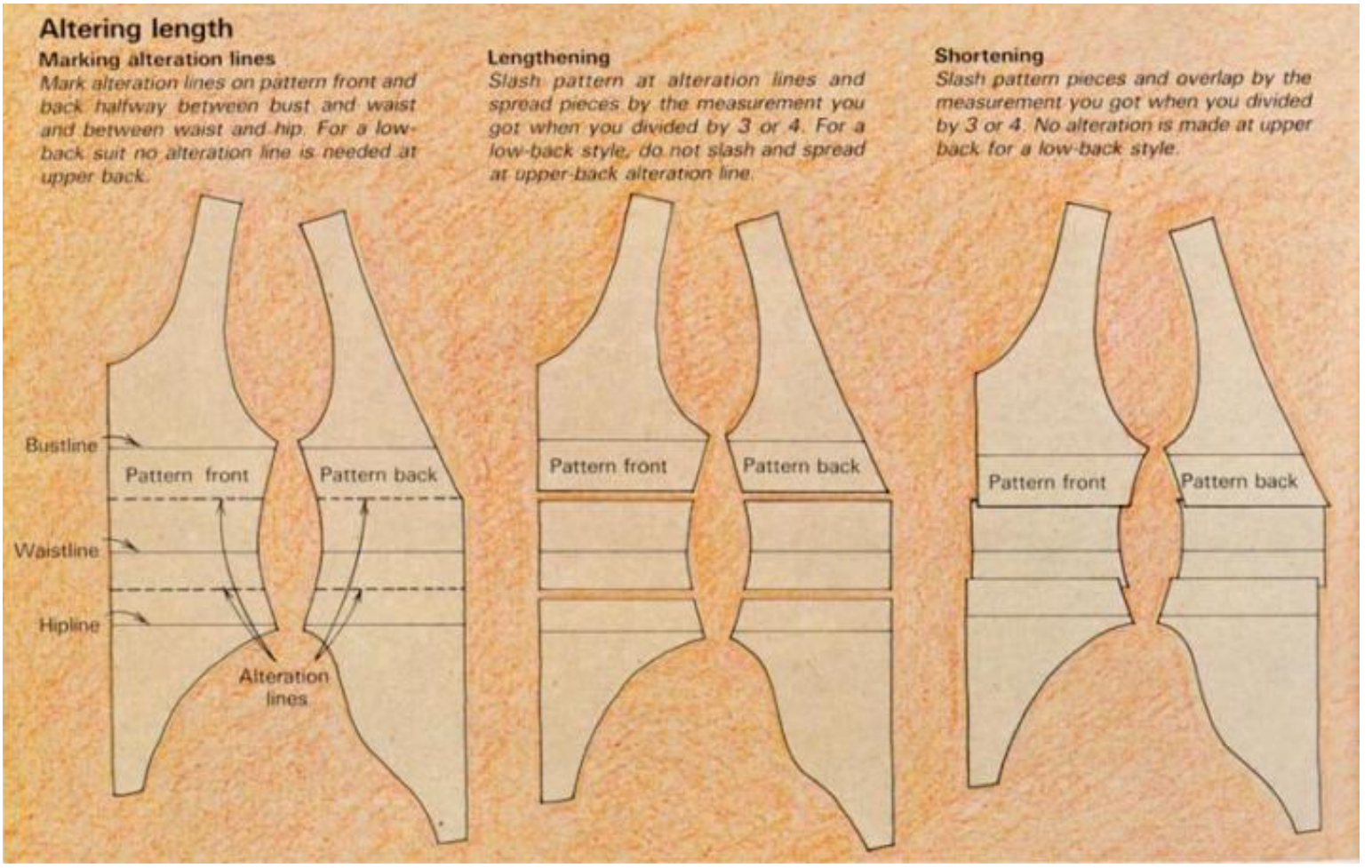
The lining must have two-way stretch and a greater degree of stretch than the swimwear fabric so that the swimwear fabric doesn't lose any of its elasticity. Banlon, lightweight girdle spandex, stretch-knit bra fabric, and other two-way stretch fabrics are all appropriate linings. The swimsuit fabric itself may be used if it is lightweight, or a lightweight swimsuit fabric may be used to line a suit of heavier fabric. If you use swimwear fabric as lining, however, you must increase the width of your pattern a small amount in order to compensate for the slight loss of stretch that will occur.

Strong thread is essential for swimwear—100% nylon is the best. Not only does it have great tensile strength, but it also has some natural stretch, so the danger of popping seams is reduced. All-nylon thread is difficult to find, though shops that carry lingerie fabrics usually stock a limited number of colors. White or beige may be used on all but the darkest fabrics. Nylon thread is slightly transparent and so fine that it tends to get buried in the surface of the fabric. The strength and thinness of this thread allow it to cut through other fibers, however, so it should be used only on fabrics composed mostly of nylon.

There is a new nylon thread for sergers (overlock machines) that has recently been made available to home sewers. Called "woolly yarn" or "woolly nylon" because of its texture, it is even stretchier than regular nylon thread and is just as strong. Its fluffy texture also makes it more comfortable next to the skin, and it covers the raw edges of fabric better.

After nylon, the next best thread is long-staple polyester, available in most fabric shops under various brand names. Always buy new thread, since old thread can dry out and become brittle, causing tangling and breaking. Sale threads are often old and all right for basting, but they're not strong enough for swimwear.

Swimsuit fabrics are tough, so always use a new needle when starting a suit to reduce the chances of a blunt or rough tip damaging your fabric. Use a size 14 ball-point or universal-point needle for heavy


Altering length
Marking alteration lines
Mark alteration lines on pattern front and back halfway between bust and waist and between waist and hip. For a low-back suit no alteration line is needed at upper back.
Lengthening
Slash pattern at alteration lines and spread pieces by the measurement you got when you divided by 3 or 4. For a low-back style, do not slash and spread at upper-back alteration line.
Shortening
Slash pattern pieces and overlap by the measurement you got when you divided by 3 or 4. No alteration is made at upper back for a low-back style.
Bustline
Waistline
Hipline
Pattern front
Pattern back
Alteration lines
Pattern front
Pattern back
Pattern front
Pattern back

fabric and a size 11 needle for fabrics that are lightweight.

Fitting — One-piece swimsuits are the most difficult to fit, but they take the least amount of time to complete. Accurate measuring is the key to perfect fit, and the most important measurement for a swimsuit is the overall body length. To take this measurement, place one end of a tape measure in the center of the hollow at the base of the throat, and then carry it down through the crotch and up the center of the back to the most prominent bone at the nape of the neck. This measurement is used to adjust the suit length to fit the trunk length of the body.

The pattern you use should correspond to your bust measurement. If you fall between sizes, use the next larger one if you're more than a size 36; otherwise, use the next smaller size. This eliminates bust alterations, which are the most difficult to make, especially if there are darts. Waist and hip adjustments are easy to make and can even be done as you trace the pattern.

Most swimsuit patterns include a chart comparing standard body-length measurements with bust sizes. If your pattern doesn't have a chart, you can easily determine what the standard should be for your size. The standard body length is 55 inches for a size 34 bust. The body length increases or decreases 1 inch for every bust size 2 inches larger or smaller than size 34. Thus, for example, the standard body length would be 57 inches for a size 38 and 54 inches for a size 32. The amount your overall body length varies from the standard is the amount you need to add to, or subtract from, your pattern length so the suit will stay in place comfortably.

Since most swimsuit patterns are designed for knit nylon/spandex fabrics with 100% lengthwise and 50% crosswise stretch, the pattern pieces may be smaller than you expect. Synthetic fabrics lose a great deal of stretch when wet; hence, patterns must be small so that even a wet suit maintains a sleek fit.

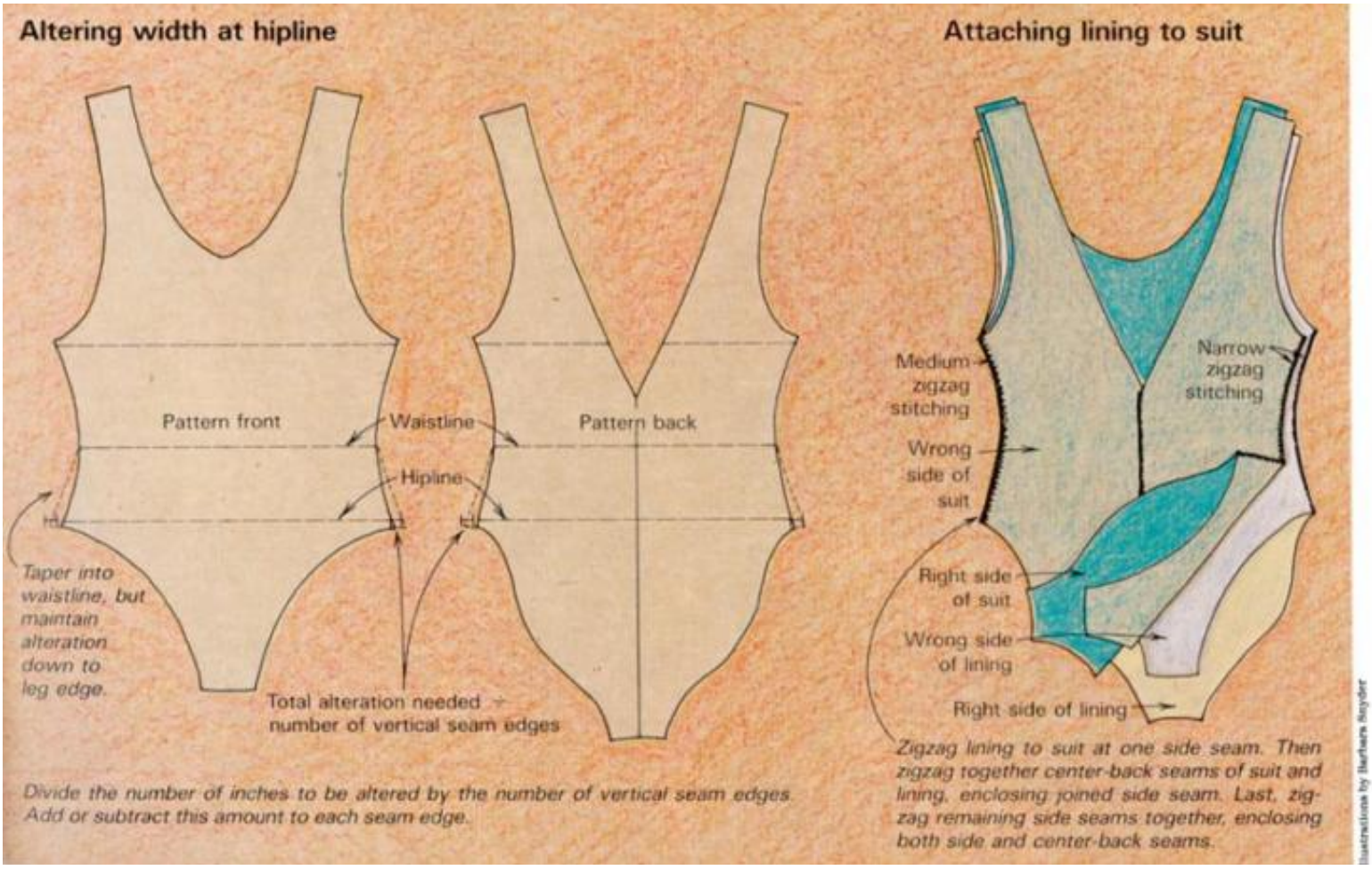
You probably are accustomed to comparing body measurements with pattern measurements to determine the fit of a garment; you can check the fit of a swimsuit pattern the same way. Measure across the front and back pattern pieces at waist and hip, from seam line to seam line, and double the measurement if the pattern pieces are of only half the suit. The sum of the back and front measurements should be 3 inches smaller than your body measurements for a lined suit and 4 inches smaller for an unlined suit.

When elastic fabrics are stretched crosswise, they contract lengthwise. A suit that's too tight will stretch to go around the body, but it will also pull down from the top and up from the bottom. Length alterations are made first so that changes in width will be made at the right spot on the body. Length adjustments are made at three or four of the alteration lines shown in the drawing above. Compare your overall body length with the standard length for your bust size. Divide the difference between the measurements by 4 if the swimsuit is higher than the waistline in the back, and by 3 if the suit ends at the waist or below in the back, and use the result to lengthen or shorten your pattern pieces, as shown in the drawing above. For example, if your overall body length is 3 inches shorter than the standard body length, you'll shorten your pattern by 1 inch at all but the upper-back alteration line for a low-back style (3 inches divided by 3) or by ¾ inch at each alteration line for a high-back style (3 inches divided by 4).

All suits to be lined need lengthening by 1 inch to compensate for the slight loss of stretch that occurs when two pieces of fabric are placed together as one. This is true even if your overall body length is the same as the standard body length for your size, providing the pattern is for an unlined suit that you wish to line. Never make a suit shorter than your measurements indicate, or it won't fit.

To alter width, divide the number of inches you need to alter by the number of vertical seam edges, and add or subtract this amount at each seam edge. For example, if you need to add 2 inches to the hips, you would divide 2 inches by 4 (since each side seam has two seam edges), resulting in ½ inch to be added to each seam edge at the hipline, as in the left-hand drawing on the facing page.

Construction — You must pretreat the swimsuit fabric to remove excess dye and sizing


Altering width at hipline
Pattern front
Waistline
Pattern back
Hipline
Taper into waistline, but maintain alteration down to leg edge.
Total alteration needed ÷ number of vertical seam edges
Divide the number of inches to be altered by the number of vertical seam edges. Add or subtract this amount to each seam edge.
Attaching lining to suit
Medium zigzag stitching
Narrow zigzag stitching
Wrong side of suit
Right side of suit
Wrong side of lining
Right side of lining
Zigzag lining to suit at one side seam. Then zigzag together center-back seams of suit and lining, enclosing joined side seam. Last, zigzag remaining side seams together, enclosing both side and center-back seams.

and to allow it to shrink before you cut out the suit. Hand-wash, or machine-wash on the gentle cycle, using a mild detergent, and line-dry out of the sun. Follow this same procedure after each wearing to remove suntan lotion, salt water, and chlorine, which can damage swimsuit fabrics. Don't preshrink elastic, as it loses some stretch during construction, and a small amount of shrinkage will restore it.

After the fabric has dried, you must determine and mark the right side. The right side is usually the more lustrous side, but occasionally you may have trouble telling the difference. Once you've made the choice, though, be consistent, since differences may be more apparent once the suit is made and worn. The pink paper tape used for setting hair is the best for marking. Its adhesive is less likely than that of other tapes to leave a residue on the fabric.

Now you're ready to cut out the suit. Place your pattern so the fabric's maximum stretch goes around the body. Cut out the suit and lining, and mark the right side of each piece with the hair-setting tape. Mark darts and other construction symbols.

Prepare your sewing machine by cleaning it thoroughly and inserting a new needle. Stitch the seams with an overlock stitch if possible, using either an overlock machine or the overedge stitch on your sewing machine. Set the stitch length slightly shorter than you use on nonstretchy fabrics, or 15 stitches per inch. A three-thread overlock stitch is the stretchiest. You can also stitch seams with two rows of narrow zigzag stitching, stretching the fabric slightly as you sew. If you must stitch straight, stretch firmly as you sew. Stitch first on the stitching line, and then sew another seam just inside the seam allowance. For straight or zigzag stitching, lockstitch all seams at each end by making three or four stitches in the same place. To secure the beginning of a serged seam, make one or two stitches in the fabric. Then bring the loose thread chain around the left side of the needle, lay it along the edge of the fabric, and stitch over it.

At the end of a serged seam, stop stitching about two stitches off the fabric edge. Pull about ½ inch of slack on the needle thread so you can slide the chain off the stitch finger of the presser foot. Raise the presser foot, turn the fabric over, and position the seam in front of the needle again. Lower the presser foot and stitch back over the finished edge for about 1 inch, keeping the edge of the fabric away from the knife. Stitch off the edge and cut the threads.

Most swimsuit pattern instructions are well written and easy to follow. If no lining instructions are given, the general procedure explained here will work.

Stitch the front, back, and side seams of both the suit and the lining, right sides together. Then place one side seam of the suit on top of the corresponding side seam of the lining, with edges even and wrong sides together. Using a medium-width and medium-length stitch, zigzag or overlock the seam allowances together (see drawing, above right), sewing through all of the four seam allowances. Do not allow the zigzag stitching to extend over the seam line, or it will show on the right side when the suit is worn.

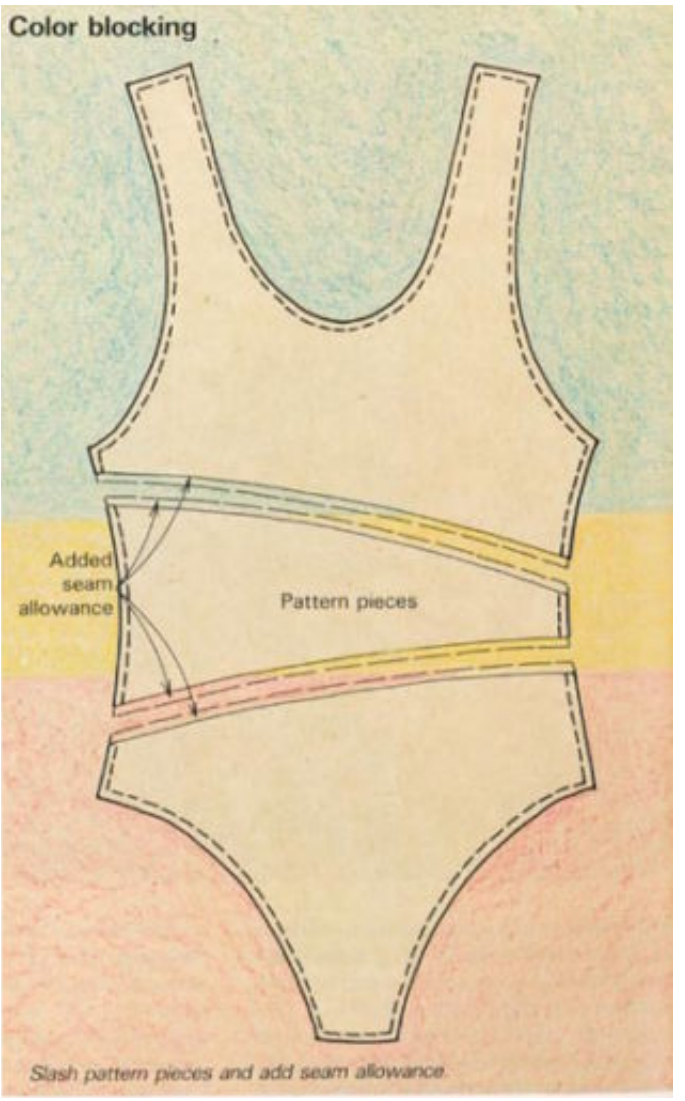
Place the next two seams—usually the center-front or center-back seams—together, and zigzag them in the same way. Continue around the suit until all lining seams are secured to corresponding suit seams. Turn the suit right side out. Zigzag-baste the leg, armhole, and neck edges of the suit to the lining. Straight-stitch a ⅞-inch crotch seam. Then turn all the seam edges to the back of the suit and topstitch ⅞ inch from the seam line. Trim close to the stitching.

Before cutting elastic for the leg openings, measure the length suggested and try it around your leg for comfort. Then cut the elastic and stitch the ends together to form a circle. Along the raw edge, on the wrong side of the suit, align the elastic's seam line with the center of the crotch area.

With a wide, long zigzag stitch, sew elastic to the edge of the leg opening on the wrong side of the fabric. Starting at the elastic's seam line, and with edges even, stitch elastic to the leg front first, stretching the elastic only slightly. Stop at the side seam. Divide the remaining elastic in half and mark the midpoint. Find the center of the back edge of the leg, and pin elastic to this spot. Continue zigzagging, stretching the elastic to fit the leg opening.

Elastic is zigzagged to the leg edge so that one stitch catches the elastic and the next falls off the outside edge.

The elastic is turned toward the wrong side of the suit and topstitched with a multiple zigzag stitch.



Stitch along the edge with one zigzag stitch catching the elastic and the next falling off the outside edge, as in the top photo shown above. Most of the stretch is at the back of the leg opening to ensure a smooth fit over the seat and reduce the tendency of the suit to pull up.

You can also serge elastic to the suit with a two-thread or three-thread overlock machine set for a medium-width and long-length stitch. Tack the midpoints together instead of pinning. Serge the elastic to the wrong side of the suit edges with the elastic on top. Keep the elastic and the fabric edges away from the knives.

Cut the elastic for the armholes 1 inch smaller than the armhole opening, and evenly distribute the stretch by quartering both the elastic and the armhole edge and matching these points. Neckline elastic is cut according to the pattern instructions. Attach the elastic to the neck and armholes just as for the leg openings, by zigzagging with one stitch on and one stitch off the elastic.

To finish the edges, turn the elastic to the wrong side, making sure the fabric covering the elastic is smooth. Topstitch ¼ inch from the turned edge, using a regular or multiple zigzag stitch, as in the bottom photo above, stretching the elastic just enough to fit the fabric.

Straps and hooks are completed according to the pattern specifications, and that's it! Your suit is ready for a trip to the beach.

Plain suits can be more interesting with decorative accents, such as lace medallions, ruffles, appliqués, decorative zippers, portholes, self-fabric ties, waistline tucks, and lacing. Color blocking is a favorite of the younger set. To achieve this effect, slash your pattern pieces in whatever design you choose. The back may be left whole, and only the front of the suit needs to be blocked. Add seam allowances to the cut edges, as in the drawing above, and cut each section from a different color or print fabric. Stitch the color blocks together again, and then stitch the side seams.

Once you've made at least one swimsuit, it will be difficult for ready-to-wear suits to please you. With little time and money, you can duplicate the expensive designer suits in your favorite colors and have a perfect fit every time. ❑

Grace Callaway, an associate professor at Georgia College in Milledgeville, GA, teaches advanced clothing construction.

Sources

Kieffers Lingerie, Fabrics, and Supplies
1625 Hennepin Ave.
Minneapolis, MN 55403
Linings, fabrics, elastics, threads, Sew Lovely and Kwik-Sew swimwear patterns, hooks, bra cups. Catalog available.

Stretch & Sew
P.O. Box 185
Eugene, OR 97440
Patterns, fabrics, elastics, bra cups, instruction book. Catalog available.

Nancy's Notions
P.O. Box 683
Beaver Dam, WI 53916
Threads, children's swimwear patterns.

Newark Dressmaker Supply
P.O. Box 2448
Lehigh Valley, PA 18001
Threads, elastics.

Home Sew
Box TH
Bethlehem, PA 18018
Serger thread, swimwear elastic.

Kwik-Sew Pattern Co.
3000 Washington Ave.
North Minneapolis, MN 55411
Multisized patterns for whole family.

Sewing men's swimsuits

Swimsuits for men have a sleek new look because they're being made from the same fabrics used for women's swimwear. Designs range from a boxer look, minus the bulky gathers, to bikinis. A kaleidoscope of colors has replaced the traditional black, brown, and navy blue. Hot pink, silvery blue, and fluorescent orange appear with increasing regularity at beaches and pools. Very little fabric is needed to make a man's swimsuit, usually only 1/2 yard to 3/4 yard. Since no fly or zipper is necessary when stretch fabrics are used, construction is fast and easy.

The same companies that sell swimwear patterns for women have them for men and boys. Patterns for tennis shorts or other fitted pants are easily adapted, so a special pattern isn't needed.

If you're using a shorts pattern, select one that's a size smaller than is normally worn, and trim away all of the vertical seam allowances. When you sew, use 1/4-inch seam allowances, and the suit will fit just snugly enough. It should be 3 inches to 4 inches narrower than the measurement around the body to fit properly.

Shorten the legs of the pattern to the length you want, and add 1/2 inch for a hem. Mark the new length on one side seam; then mark the inseam the same distance from the bottom edge. Connect the marks with a French curve for the new cutting line, as in the left-hand drawing below. There should be a slight curve up to the side seam for more comfort in wearing. You may want to taper the leg seams of a shorts pattern so that the circumference at the leg edge is the same as the leg measurement. This gives the suit a neat appearance.

For a hip-hugger suit, lower the waistline edge 2 to 3 inches. For a bikini, lower the waistline edge 4 to 6 inches and shorten the leg. Men's suit silhouettes are shown in the middle drawing below.

Cut out the suit with the greatest amount of stretch going around the body. For the lining, cut the same pieces again from lining fabric, lowering the waistline edge 1 inch to prevent bulk. Mark the right sides of the suit and lining pieces with hair-setting tape.

For extra support in the crotch, you can cut a second set of back and front pieces from the lining fabric, making them 1 inch shorter at the waist than the lining pieces. This inner lining will have a shorter crotch depth than the suit and lining pieces. Shorten the legs of the inner lining as for the bikini.

To join seams, use the same stitching techniques that are used in women's swimwear. Stitch the crotch seams of the suit and the lining(s) separately. With suit and lining pieces wrong sides out, stitch the lining seams to the swimsuit seams as described for a woman's suit. The top of the lining will be 1 in. lower than the top edge of the suit.

Turn the suit right side out. Zigzag-baste the leg-opening edges together. Stretch-baste the top edge of the lining in place 1 inch below the top edge of the suit, beginning at one side seam. To stretch-baste, handsew for short lengths, cutting the thread in between, as in the right-hand drawing below. Use a small needle and the finest thread it will take to avoid leaving marks in the fabric. This method of basting will hold the lining in place while allowing the two fabrics to stretch as needed. The threads are easily removed without damage to the fabric after the waistline is completed. Zigzag basting on this edge could damage the fibers when the basting is removed and would leave needle holes showing on the right side of the suit.

If you're using an inner lining, place it inside the suit with the wrong side against the right side of the lining and the upper edges of the two linings even. Stretch-baste both layers to the swimsuit fabric.

Cut 1-inch-wide swimsuit elastic 1 to 2 inches shorter than the circumference of the body at the suit's "waistline" (which differs for trunks, hip-huggers, and bikinis). Overlap the ends of the elastic ½ inch and join securely. Quarter the elastic and mark each quarter point, with the seam at the center back. Mark the waistline edge of the suit at the center front and back.

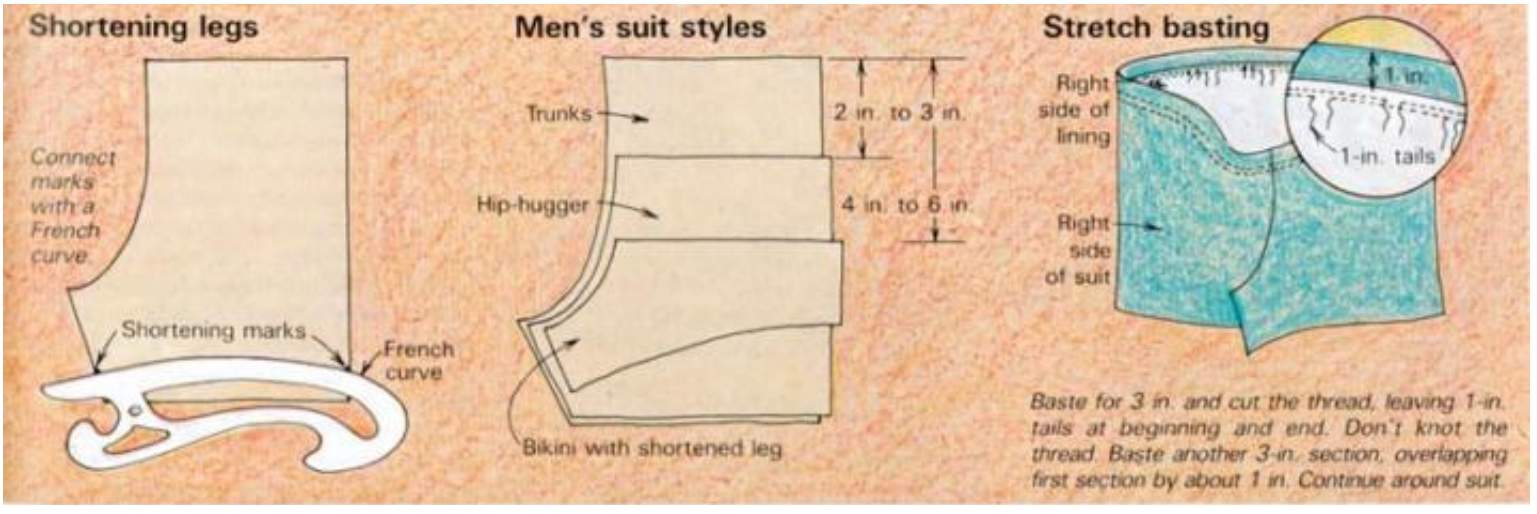
Halfway between the center front and the left side seam, place a 1/2-inch-wide by 1-inch-long strip of lightweight interfacing on the wrong side of the suit, 1/4 inch below the waistline edge. Make a 1/2-inch-long vertical buttonhole for the drawstring down the center of the strip, 1/2 inch below the top edge of the suit. This may be either hand- or machine-worked, but a machine buttonhole is usually stronger, especially if stitched twice.

Match markings and pin waistline elastic to the inside suit edge at each point, with the elastic's seam at center back and the top edges even. Zigzag the elastic to the fabric edge, using the same technique as for a woman's suit: one stitch on the elastic and one off. When you have sewn all the way around, overlap the stitching at the beginning 1 inch.

Fold the elastic to the inside of the suit, with the top edge of the suit snug against the edge of the elastic. Matching the quarter marks again, zigzag-topstitch along the same edge of the elastic that was just stitched. Begin at a side seam and end by overlapping the stitching 1 inch. Remove the stretch-basting threads.

For the longer-leg style, cut 3/8-inch-wide elastic the exact measurement of the leg opening, plus 1/2 inch. For the shorter, shaped leg, cut elastic 1 inch shorter than the measurement. Elastic is applied to the longer legs in the same manner as at the waistline, but without stretching. To attach elastic on the shorter-leg style, follow the technique described for the woman's suit, positioning all the stretch at the back of the opening. Finish the leg opening of the inner lining, if included, with 3/8 inch or 1/4-inch elastic. For the longer-leg style, you can omit the elastic at the bottom edge entirely. Just turn under a 1/2-inch hem and use a stretch stitch, such as the multiple zigzag stitch, in order to hold the raw edge in place.

To finish the suit, cut a thin cord of 1/4-inch-wide twill tape 18 inches longer than the body measurement. Use the buttonhole on the inside left front to insert the drawstring in the casing. If 1/4-inch twill tape is not available, fold 1/2-inch tape down the center, and stitch the edges together. —*Grace Callaway*


Shortening legs
Connect marks with a French curve
Shortening marks
French curve
Men's suit styles
Trunks
Hip-hugger
2 in. to 3 in.
4 in. to 6 in.
Bikini with shortened leg
Stretch basting
Right side of lining
1 in.
1-in. tails
Right side of suit
Baste for 3 in. and cut the thread, leaving 1-in. tails at beginning and end. Don't knot the thread. Baste another 3-in. section, overlapping first section by about 1 in. Continue around suit.

Two Takes on Felting Wool Jersey

Exercise your creative options by shrinking wool jersey before, or after, embellishing with it

by Karen Tornow
(from issue #109)

For the innovative stitcher, it's hard to imagine a more provocative material than felted-wool jersey. After a few machine-washings, the knit fibers in any wool jersey or double knit fuse, creating a completely nonraveling, almost leatherlike, yet still light, pliable, and inviting material. There's no need for edge finishes, facings, linings, or seam allowances when sewing with this easily produced fabric, which makes it perfect for a host of quick and inventive construction and appliqué techniques.

Felt first or embellish before felting

At first, I felted all my wool jersey yardage as soon as I got it home, thinking only of the interesting

The felting progression: Three washings are usually needed to get dense felted textures.

Felt first, then overlap and cut icicle shapes

The author **made a tissue tracing** of each major pattern piece (Kwik Sew 2809, at right), and drew on them the icicle-shaped lines that would divide the garment into two colored areas. She cut out the entire garment in the felted darker fabric, joined all vertical body seams, then layered these over a wide strip of the felted lighter fabric, and **stitched the icicle shapes using the marked pattern tissues as tear-away guides.** She trimmed away the excess fabric on both sides, then used the cutoff portions for subsequent appliqué layers. The sleeves were constructed similarly. **All the seams were lapped and double-stitched and all the edges were left unfinished.**

Felt first, then create reverse appliqués

The author **cut out the jacket on p. 87 without knowing where she'd place the reverse appliqué leaves.** The sleeves had to be pieced because the felted fabric wasn't wide enough to cut them as intended by the pattern (The Sewing Workshop's Inventor Shirt, modified). All the seams were lapped and double-stitched, and all the edges were left unfinished. To simplify the appliqué, she sewed as many seams as possible to still allow the garment to lie flat. **Tracing real maple leaves to create her appliqué patterns,** she arranged felted leaf cutouts (disregarding grain direction) on the garment until she found a pleasing design. Each was pinned to the wrong side and edgestitched in place, then **the top fabric was cut away to reveal the inset** (left

Model photos and bottom right photo on p. 86: Jack Deutsch; inset photos on pp. 87-88, top right photo on p. 89: Scott Phillips; bottom left photo on p. 88 and bottom right photo on p. 89: Sloan Howard; all other photos: David Page Coffin; makeup: Susana Perks

things I could do with an already-felted fabric. But it wasn't long before I discovered the often more interesting results you can get by manipulating the unfelted fabric in some way before washing it—stitching on it, wrapping it, slashing it, layering it, and so on. To put these discoveries into context, I'll take you on a tour of four felted-wool garments, describing how I proceeded in each case and suggesting alternatives. But let's begin with the felting itself, and how to factor it into your sewing plans.

Wool-felting basics

As the felting process does its magic, it shrinks the fabric lengthwise by at least a third, and somewhat less crosswise. Typically, wool jersey yardage is 56 inches wide, but for a felted project I use the yardage recommendations for 45-inch-wide fabric, and buy twice the needed amount, which allows plenty for the project and the samplemaking and experimentation that are involved. Any all-wool jersey or double knit will felt, but the results will vary, depending on the qualities of your fabric, and how many times you wash it. Solid colors are my usual choice, but patterned fabrics can be interesting too.

To felt yardage, first fold it in half and machine-baste the selvages and cut ends together about ¼ inch from the edges. This helps re-

detail photo below). The vine design was added by couching ¼-inch felted strips with a wide zigzag stitch. The buttonholes are rectangular stitched boxes backed with a felted scrap and slashed within the stitching (below right photo).

Other effects with felted fabric

Among many other options, felted fabric can be used (below photos from top to bottom): with raw edges cut in decorative ways; pieced, using butted seams; and couched and beaded.

Apply sinuous strips, then felt

From unfelted fabric, the author cut pieces equal to twice the needed length for both the front and back of the jacket at left (Vogue 2279), setting aside material for the plain felted sleeves. She next **cut many ¼-inch-wide lengthwise strips** and arranged them on the pieces that were to become the front and back. She started with a few long strips, pinning them in improvised patterns of sparsely intertwined angled lines and working away from one narrow edge on each body piece (inset photo below). In order to sew lapping strips, she marked the path of the top strip on the background with pins and removed it, sewed on the strip beneath, then followed the pins to sew on the top strip. She filled in her design in the same manner using progressively shorter strips. **After felting all the pieces at once,** she constructed the garment with lapped and double-stitched seams. All edges were folded to the wrong side and secured with hand stitches. **The selvages of this fabric formed tight curls when felted,** which she cut off to form tie closures. The collar is a double layer, the inner one of which was cut with the long edge on the selvage, and this selvage rolled over the raw edge of the other collar layer and was hand-stitched in place.

Apply small scraps, then felt

The author first measured the combined length of the front and back body pieces (Vogue 2615, below) that she planned to enhance, then cut twice that amount from unfelted fabric. Material for the plain felted sleeves was set aside.

Next, she cut many **½- to 1-inch fabric squares,** and using a variegated cotton thread, she **stitched lines in a random pattern all over the body piece, occasionally tucking a square under the needle.** After felting both treated and untreated pieces, she trimmed the felted squares close to the stitching. All the seams were lapped and double-stitched and all the edges were left unfinished (bottom photo).

For confetti trim, apply small, brightly colored scraps before felting, see above right. (Jacket: modified Simplicity 8257, discontinued.)

duce edge curling and grain skewing. Fill your washing machine with your hottest water and add detergent before putting in the fabric (don't pour it on the fabric), then select the longest cycle available. Don't crowd the machine, or mix very different colors, since dyes can run. If you've cut multiple lengths or pieces, wash them together so they'll have the same texture.

Three wash cycles are usually enough for me to get felting I like, but it's good to measure your yardage between washings to be sure it isn't shrinking so short you no longer have enough for your project. To get more shrinkage, you may be able to reset and repeat the agitation cycle on your machine. You can add boiling water to raise the temperature (hotter water increases the felting). Skip the detergent after the first wash and bypass the rinse cycle as it usually uses cold water. After each washing put your fabric through a normal hot cycle in the dryer. When you like the looks of your fabric, the felting is done.

Steam, don't press

Remove or cut off the basting. Then, using a wet press cloth, steam the fabric before cutting; don't touch the felted surface directly with the iron, and be sure to let the fabric cool and dry before you reposition it on the ironing board. During and after construction, keep the iron's soleplate away from the right side of the fabric, so you don't flatten the texture or create shiny marks.

Plan before cutting

Before you cut into your felted yardage, it's important to have a

plan for your construction methods (lapped or conventional seams; facings; hems) and your embellishments if decorative hem edges are involved. I always figure out where I will (or won't) need seam and hem allowances, and mark them on each edge of the pattern before cutting, so I don't have to trim anything later. I use a rotary cutter when cutting all but the most complex shapes, using rulers and other cutting guides for precision, especially when using lapped or butted seams (see *Threads* No. 103, pp. 58-61 for more on lapped seams), and whenever the cut edge will be exposed. To cut into corners, I use a buttonhole cutter, which looks and cuts like a small chisel, but small sharp, pointed scissors work just as well. If notches are necessary, I cut them extending from the edge, and clip them off when no longer needed. When manipulating the fabric before felting, I measure each piece that will be enhanced, then apply whatever treatment I've chosen to twice the width and length of fabric required. Check out the descriptions for each of the four featured garments for more detailed descriptions of my construction and embellishment strategies. If you discover any other neat ways to take advantage of felted wool's wonderful qualities, please let me know. ♦

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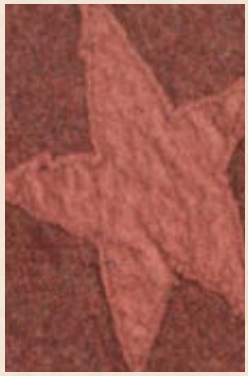
Try it out!

Make a pillow to try felted jersey on a small scale. Layer contrasting colors, stitch a pattern of random squares, then cut away the top layer. Leave all edges of the cut "fringe" unfinished.

Other effects to create before felting

Unfelted jersey can be **cut into strips and woven** (below left). Stitch around the edges of the weaving before felting to secure them. **By wrapping rubber bands** tightly around selected sections, shibori-like textural effects can be achieved (below middle). The band can even be cut off after felting, creating ravel-free holes. **Appliqués added before felting,** and placed without regard for grain alignment, created interesting textural as well as color contrasts (below right). Experiment to find other options.